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KINGDON, LINDBLOM, AND LOVELL:
ASSESSING THREE MODELS OF
THE PUBLIC POLICYMAKING PROCESS

An Abstract of a Dissertation

Presented to

The College of Education

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

Richard H. Klodnicki

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ABSTRACT

No side-by-side, multi-model, fifty-state quantitative assessment exists in the study of higher education public policy to determine which model or elements of models accurately reflect the policymaking process. This dissertation was an effort to advance the knowledge of the higher education public policymaking process by assessing three models of the policy-making process (Kingdon's Multiple Streams or Revised Garbage Can, Lindblom's Bounded Rationality or Incrementalism, and Lovell's Three-Tier Taxonomy) across three major policy issue areas (affordability, access, accountability) using State Higher Education Executive Officers' and Legislative Education Committee Chairpersons' perceptions as reported through responses to a survey addressing legislation since 1996. Data collected from the surveys were used to calculate mean scores. Data were examined through analysis of variances (ANOVA) as well as paired samples t-tests procedures.

This dissertation examined four primary research questions: (1) Which model was perceived as accurately depicting how policymakers produced higher education public policy? (2) Which model was perceived as accurate along major policy issue areas? (3) Which model was perceived as accurate along lines of regional higher education? (4) Which model was perceived as accurate along lines of systems of higher education governance? Kingdon's and Lovell's models were both perceived as accurate across all four research questions while Lindblom's model was perceived as accurate only along one regional compact and one system of governance. In the process of answering the research questions

and assessing the individual elements of each of the three models, this study presented a hybrid model integrating all three elements of Lovell's model, three of the four elements of Kingdon's model and two of the elements of Lindblom's model.

The hybrid model suggests that higher education public policymaking is a *political* process of stages. This political process includes the processes of *problem identification* and of solutions (*policy proposals*) leading to selection of a *preferred* policy. This political process likewise demands *stakeholder inclusion* with *value discussions* weaving throughout. Finally, it describes the policymakers' process of seeking to *empower* policy implementers. While it still requires testing, this hybrid model gives researchers an additional tool for modeling and analyzing higher education policymaking.

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CHAPTER ONE

INTRODUCTION

If humanity is to reach beyond the insecurities of the present to a more abundant, humane, and sanguine future, policies must mediate between reality and aspiration (Lasswell, 1948, p. 889)

Little, if any, research involving the quantitative, empirical testing of models exists in the study of higher education public policy. The lack of research was due in large part to the unfinished work of policy science and its pioneer efforts in testing frameworks, theories, and models for rigor (Almond, 1966; Barzun, 1963; Blum, 1992; Bowen, 1977; Braybrooke & Lindblom, 1963; Crosson, 1984; Dror, 1971; Easton, 1965b; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hatch, 1993; Hofferbert, 1974; Lasswell, 1948, 1951; Lincoln, 1986; Lindblom, 2002; Sorzano, 1975). These pioneers started their work because they saw that models help clarify the policymaking process and make it available to rigorous study. In addition, the pioneers reported that models help mediate between reality and aspirations of reality (Lasswell, 1948). This research on testing higher education public policy models started where the research of the pioneers left off. This is "work that is long overdue in the policy sciences" (Lindblom, 2002), especially in higher education public policymaking research.

Statement of the Problem

No side-by-side, multi-model, fifty-state quantitative assessment exists in the study of higher education public policy to determine which model or elements of models accurately reflect the policymaking process. An inability to accurately portray the higher education public policymaking process can result in dire consequences for society (Easton, 1965b; Lasswell, 1951). The dire consequences include producing higher education public policy that wastes resources, destroys academic environments, reduces or eliminates positive effects on the students, faculty, administration and staff, and that hampers the performance of society (Bowen, 1977). The public policy literature points to a need for examinations of the accuracy of the models through empirical methodology. Lindblom (2002) bemoans the fact that "in fifty years since I published my [Bounded Rationality or Incremental] model, no one has tested it. They just keep using it as is." This study tested the perceived accuracy of three models used to describe the higher education public policymaking process as reported by State Higher Education Executive Officers (SHEEOs) and Legislative Education Committee Chairs (LECCs). This research, the quantitative, empirical testing of the models used in higher education public policy research, discovered whether the models were perceived as accurate in describing higher education public policymaking.

Purpose of the Study

This dissertation was an effort to advance the knowledge of the higher education public policymaking process by assessing three models of the policy-making process (Kingdon's Multiple Streams or Revised Garbage Can, Lindblom's Bounded Rationality or Incrementalism, and Lovell's Three-Tier Taxonomy) side-by-side across three major policy issue areas (affordability, access, accountability) using State Higher Education Executive Officers' and Legislative Education Committee Chairpersons' perceptions as reported through responses to a survey addressing legislation since 1996 with the state as the unit of analysis. In the process of advancing knowledge through model testing, this study also recommended research into a hybrid model discovered through the analysis of the results from the survey responses. What follows is a discussion of the reasons for selecting the three models. Next is the delineation of higher education public policy into three major policy issue areas. Following that is the discussion of why the researcher selected the SHEEOs and LECCs as the final study groups. The final section details the regional compacts used in this dissertation.

This study used Lindblom's model (1959) because it is the earliest opposing model to the Rational-Comprehensive presented by policy science pioneers and is the most respected model to date. The model received abundant accolades and rich respect by policy researchers and analysts as the benchmark for theories and models that followed (Hines & Goodchild, 1997) because of its "universal acceptance to 'pundits' (academicians) and to 'players' (policy

practitioners and lawmakers)” (p. xxix). This study used Kingdon’s model (1984) because it is a unique extension of Cohen, March, & Olsen’s (1972) work on organized anarchies (specifically, institutions of higher education) as applied to the organized anarchy of policymaking—it seemed fitting to use the model that applies to both the organized anarchy of higher education and to the organized anarchy of policymaking. In addition, Lindblom (2002) supports the testing of this model because of its reliance on the garbage can model of Cohen, March, and Olsen, a model Lindblom sees as “accurately depicting the intricacies of the policymaking process.” This study also used Lovell’s Three-Tier Taxonomy (2001) because it was the most recent and strictly ‘higher education’ public policy model for producing good higher education public policy. In addition, it was the first model presented in a Public Policy pre-conference forum at an annual meeting of the Association for the Study of Higher Education.

The literature is replete with issues of higher education public policy. The Association of Governing Boards of Universities and Colleges, the Education Commission of the States, the National Conference on State Legislators, the State Higher Education Executive Officers, and the U.S. Department of Education each address the issues of most interest to them ranging from access to workforce development. Reasonably, a categorization of the myriad issues into a manageable set of major policy issues seems worthwhile. The literature reports three major public policy issue areas into which most higher education public policy issues can reasonably fall—affordability, access, and accountability. (Association of Governing Boards, 2002; Congressional Record, 1990; Education

Commission of the States, 2002; Gladieux, Hauptman, Knapp, 1997; Hannah, 1996; Heller, 2001; McGuiness, 1997; National Conference of State Legislatures, 2002; U.S. Department of Education, 2002). This dissertation used the segregation of higher education public policy into these three main policy issues.

The survey asked State Higher Education Executive Officers and Legislative Education Committee Chairs about their perceptions of models as accurately reflecting the process used by policymakers to produce higher education public policy in the past six years (1996-2002). The study sought State Higher Education Executive Officers and Legislative Education Committee Chairs opinions for two primary reasons related to their status as experts in higher education public policy. First, each state has a State Higher Education Executive Officer and the SHEEOs work with stakeholders, policymakers, and policy analysts within the higher education community of their states and within the state legislative bodies. Second, in regards to the Legislative Education Committee Chairs, each state has a Senate and a House Education Committee Chair that work with policymakers in producing higher education public policy—with the exception of Nebraska, which is a unicameral system. In addition, the survey used the time frame of 1996-2002 because of the amount of time SHEEOs and LECCs might remain in their positions. It responded to the volatile nature of the term of office for elected and appointed officials. Finally, it coincides with the 1996 general elections.

This study used the delineation of regional compacts in reporting the data. It used regional compacts because they are a unique demarcation for higher

education public policymaking. Other recommended delineations included accreditation (Boland, 2001) and national census districts (Adelman, 1999). This study used the regional compact versus the accreditation or national census districts for four reasons. First, the delineation is natural to the interest of the state and may extend beyond accreditation or census districts. Second, regional compacts specifically orient themselves to considerations of legislation within the geographic region. Third, membership in a regional compact is voluntary and signals a desire by the state to consider higher education public policymaking with a regional frame of reference. Finally, two of the regional compacts have a history of over fifty years (Blanco, 2002) of dealing with higher education public policymaking concerning the region.

Research Questions

This study concerned itself with the following overarching research question: Which model do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately reflecting the process used by policymakers to produce higher education public policy? Implicit in this question is the understanding that respondents might perceive one, two, three, none or parts of models as accurately portraying the higher education public policymaking process. By expanding the overarching question, this study sought to determine if perceptions of accurate depiction vary by one of three major policy issue areas of higher education public policy, regional compact, or by type of higher education governance system. Specifically, the research

questions ask: (1) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy? (2) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along major policy issue areas? (3) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of regional higher education compacts (Midwestern Higher Education Commission [MHEC], New England Board of Higher Education [NEBHE], Southern Regional Education Board [SREB], or Western Interstate Commission for Higher Education [WICHE])? (4) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of systems of higher education governance (Consolidated Governing Board [CGB], Coordinating Board [CB], or Planning/Service Agency [P/SA])?

Definitions

Terms used in this dissertation originated from research in public policy, policy science, policy analysis, higher education, qualitative and quantitative methodologies, and modeling. Some of the terms used in this dissertation shared

their meaning across research areas and some did not share meaning. To reduce the possible obfuscation that results when meanings differ, in this section of Chapter One are explicit definitions of the terms used in this dissertation. Each term defined starts with the theoretical definition from the literature, then describes the operational use of the term for this study. Some definitions may not change much from theoretical to operational. Regardless, for a shared sense of understanding and meaning, these definitions are necessary.

Framework: The literature described a framework as the skeleton or outline used to develop the systematic examination of a theory, model, or system (Ashbury, 1970; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Morris, 1967; Stogdill, 1970); a “coherent set of principles that govern the study and understanding” of the process (Birkland, 2001, p. 4). In this study, a framework is an outline of coherent principles that will be used to develop the systematic examination of the models.

Theory: The literature portrayed the definition of theory as a description of a philosophy, hypothesis, premise, scheme, or as consolidated ideas that help make sense of the uncertain and allow for the development of concepts that apply to more than one situation; a theory is a representation of the repeated trends within a process or system under examination (Birkland, 2001; Dye, 1972, 2001; Garson, 1974; Greenberg, Miller, Mohr, & Vladeck, 1977; Gupta, 2001; Hartmark & Hines, 1986; Heckathorn & Maser, 1990; Howlett & Ramesh, 1995; Lasswell, 1948, 1954; Lowi, 1964, 1970, 1972, 1992; Sabatier, 1999; Theodoulou & Cahn, 1995). In this study, theories are guiding ideas that can be observed

repeatedly and serve as agreed upon contexts from which issues can be examined that will be used to discuss inferences made about the models.

Model: The literature pointed out that because some systems are too complex to study, researchers used models to represent the salient aspects of a system (Anderson, 1990; Ashbury, 1970; Morris, 1967). Models are convenient representations of reality (Anderson, 1975; Birkland, 2001; Cohen, March, & Olsen, 1972; Dye, 1972, 2001; Garson, 1974; Goodchild, Lovell, Hines, Gill, 1997; Greenberg, Miller, Mohr, & Vladeck, 1977; Gupta, 2001; Hartmark & Hines, 1986; Kingdon, 1995; Lasswell, 1948, 1954; Lindblom, 1959, 1979, 1982; Lowi, 1964, 1970, 1972, 1992; McLendon, 2001; Nagel, 1979). The effectiveness of a model stems directly from the accuracy of its depiction. For this study, a model is a simplified representation of a complex process or system. The goal is to discover whether the models accurately portray the higher education public policymaking process.

Policy Science: The literature explained policy science as a scientific approach to the study of policy “concerned with the contributions of systematic knowledge, structured rationality and organized creativity to better policymaking (Dror, 1971, p. ix). The study of how “policies are and ought to be made” (Lindblom, 1968, p. 3). “The policy sciences includes (1) the methods by which the policy process is investigated, (2) the results of the study of policy, and (3) the findings of the disciplines making the most important contributions to the intelligent needs of the time” (Lasswell, 1951, p. 4). “Those who apply the most rigorous qualitative and quantitative techniques to their work are sometimes

called policy scientists, and their field of study *policy sciences*. These researchers practice in the analytical tradition of policy studies. An important part of the policy sciences is the study of policy analysis” (Birkland, 2000, p. 17). Policy science, as used in this dissertation, is the art and rigorous discipline of examining the policymaking process to include its frameworks, theories, models, and methodologies in an effort to improve the policymaking process and add to the knowledge of the policymaking process, its stakeholders, and its environment (Lasswell, 1951).

Public Policy: The literature responded to the definition of public policy with a number of different definitions. For example, public policy was described as a “purposive course of action followed by an actor or set of actors in dealing with a problem or matter of concern” (Anderson, 1975, p. 3). It was also the “outcome of political compromise among policy makers” (Lindblom, 1968, p. 4). Earlier, the policy science pioneers saw public policy as the outcome of influence or persuasion by individuals or organizations in confronting public problems that required action of a public nature by the policymakers (Merton & Lerner, 1951). For this study, public policy is the decision making process by a recognized and legitimate governing entity that affects the public and that sets direction and guidance for members of the community.

Higher Education Public Policy: The literature treated higher education public policy as both the same as public policy in general, and as a unique component of policymaking (Crosson, 1984; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Heller, 2001; McGuinness, 1994;

McLendon, 2001; Richardson, Bracco, Callan, & Finney, 1999; Sabloff, 1995, 1997; Zumeta, 1992, 1998). For this study, higher education public policy is that public policy specifically affecting the conduct of higher education.

State: The definition of a state found in the literature is the definition used in this study: A state is one of the fifty states of the United States, i.e. Colorado (Burke & Modarresi, 2000; Crosson, 1984; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Heller, 2001; McLendon, 2001; Richardson, Bracco, Callan, & Finney, 1999; Sabloff, 1995, 1997; Zumeta, 1992, 1998). In this study, the state will be used as the unit of analysis.

Higher Education Regional Compact: A higher education regional compact is a cooperative of states coming together to deal with broad and specific issues of higher education from a regional perspective (Bowen, Bracco, Callan, Finney, Richardson, & Trombley, 1997; McGuiness, 1994) such as affordability, access, and accountability. The Higher Education Regional Compacts referred to in this study include Midwestern Higher Education Commission (MHEC), New England Board of Higher Education (NEBHE), Southern Regional Education Board (SREB), and Western Interstate State Commission for Higher Education (WICHE).

Methodology

This study used a survey to elicit perceptions of accuracy on three models used to describe the higher education public policymaking process. Four groups of participants were engaged to complete this study. Two groups assisted in survey development (a panel of experts and a study group) and two groups

combined (State Higher Education Executive Officers and Legislative Education Committee Chairs) to complete the resulting survey. The survey asked respondents to consider only policy made during the 1996-2002 legislative sessions. Data collected from the surveys were used to calculate mean scores for the models in total, along lines of major issue of policy, regional compact, and systems of governance. Data were presented in tables, figures, and graphs. Also, data were examined through analysis of variances (ANOVA) and paired samples t-tests procedures to determine if statistically significant differences occurred between the mean scores.

Data Collection and Analysis

The framework for the analysis of the data responded to the four research questions. A survey, and where necessary follow-up telephones interviews, served as the primary instrument to collect the data for this study. Babbie (1990) explained that survey research is well suited to studies that seek to gather considerable amounts of information and that the information collected becomes permanent and affords the researcher the opportunity to return to the data for future analysis (p. 44). Additionally, survey research allows the researcher to describe, explain, and explore the survey sample or population (p. 51). Survey research is also a more cost effective method than direct observation of each of the fifty states' policymaking process. Survey research is less time consuming than an examination of the historical records for each piece of higher education public policy in all of the fifty states.

This study described the perceived accuracy of models, explaining the perceptions through tables, graphs, and figures. It explored a number of facets related to the data. Coupling the traits of description, explanation, and exploration with the savings in time and money, the survey method was best suited to data collection for this study. In addition to the data from the surveys, using directories and other resources helped delineate the regional compacts and distinguish the state systems of higher education governance for analysis of the survey collected data. SPSS 10.0 for Windows® served as the primary data analysis software with reliance upon Microsoft Excel® as well.

The analytical goal of this study was to test for the perceived accuracy of the three models and to discover if the perceptions varied by one of the three major higher education public policy issue areas, by regional compact, or by type of higher education governance system. Data presentation occurs primarily through description of the data and secondarily through tables and graphs. To preserve the sensitivity of the information provided by State Higher Education Executive Officers and Legislative Education Committee Chairs and to respect their anonymity, the data will not provide specific state responses.

This study used the aggregate mean scores in presenting data. The **aggregate overall mean score** is the mean of all State Higher Education Executive Officers and Legislative Education Committee Chairs scores aggregated. The **SHEEO aggregate mean score** is the mean of all State Higher Education Executive Officer scores aggregated. The **LECC aggregate mean**

score is the mean of all Legislative Education Committee Chairs scores aggregated.

Limitations

The primary limitation to this study was thought to be the tenure of the State Higher Education Executive Officers and Legislative Education Committee Chairs working with higher education public policy. Tenure of the SHEEOs and LECCs directly affected their ability to report on policy based on their familiarity and background with higher education public policy and policymaking. While many State Higher Education Executive Officer appointments occurred recently, the SHEEO offices had the knowledge resources available to answer the questions on the survey. Legislative Education Committee Chair tenure was thought to be less problematic, except in the states with term limits on its legislators—especially in the western states of WICHE where 10 of the 15 member states have term limits (Blanco, 2002; Ruppert, 2001; WICHE, 2002). Most Legislative Education Committee Chairs are not first-term members of their respective legislative chambers and therefore should have had direct, first-hand knowledge of higher education public policy in the past six years. In addition, the staffs for LECCs could provide historical support to the LECCs as necessary, especially for the more junior LECCs or in the 19 states where term limits on legislators exist (Ruppert, 2001) to varying degrees. While tenure in office was a limitation, so too were limitations to statistical descriptions and inferences.

The limits to the descriptions and inferences stemmed from the data collection, analysis of the reliability and validity of the instrument, and the time frame selected. For example, lack of responses, failure of item reliability tests, a bad survey question (item) or bad survey (not reliable, not valid) could have limited the analysis and the subsequent descriptions and inferences made about the data. Solid research methods and designs, assessments of reliability, and assessments of validity helped in overcoming limitations associated with the survey questions.

Reliability tests, such as the qualitative content analysis, item analysis, and Cronbach's alpha, helped ensure the data collected from the surveys was the data necessary to conduct the analysis and to describe the data as well as generate inferences. A panel of experts reviewed each question and the flow of the survey. In addition, panel members were asked to comment on the items and the instrument in total and make suggestions for improvement. After incorporating the panel of expert responses, the refined survey had a pilot test for further refinement. During the pilot, item analysis and Cronbach's alpha were used to test subsets of the survey questions by model in assessing the reliability in the instrument.

Validity is the assertion that there exists a correspondence between the abstraction of the model and the actuality the model represents—that the model actually represent the process of policymaking. This entire dissertation was in effect a test of model validity. For the instrument in this dissertation, validity was a search for correspondence between the survey questions and the models they

intended to test. The model and the instrument are valid "to the extent [they] measure or represent what [they] intend to measure" (Weber, 1985, p. 12).

The limitation to inferences based on the time frame could have proved problematic. While the six-year time frame selected may have an arbitrary appearance, it was designed to alleviate problems associated with the variety of election and appointment terms across the fifty states. Changes to elective and appointed positions occur in short order, often lasting only a few years. Also, some states placed term limits on their legislators. This study used the six-year period as a compromise between the variety of expected tenures in office and as a connection to the 1996 general election.

Other limitations to the study existed. These limitations could have arisen: (1) if the responding State Higher Education Executive Officers or Legislative Education Committee Chairs lacked familiarity with state higher education public policy, its process, its policymakers, its major policy issue areas, and the stakeholders; or (2) if the state(s) addressed higher education public policymaking through non-traditional methods or addressed non-traditional issues of higher education public policymaking. As mentioned earlier, SHEEOs and LECCs tenure could have directly affected the first limitation. Individually, SHEEOs and LECCs can overcome a lack of familiarity using archival data and strong support staffs. Collectively, states were fairly uniform within their regional compacts therefore, using the scores across compacts helped reduce or erase the effects of using non-traditional policymaking methods or addressing non-traditional issues of higher education.

Limitations to this study were also addressed by ensuring the instrument met reliability and validity testing measures, using both a panel of experts and a study group for testing the instrument, and using scores across regional compacts. These measures helped reduce the affect of tenure, lack of familiarity with higher education public policymaking or major issues of higher education public policy, and non-traditional approaches to the higher education public policy or non-traditional issues of higher education public policy.

Contribution to the Literature

Assessing models of higher education public policymaking allowed this researcher to contribute to the literature on models of policymaking in three ways. First, this dissertation refocused attention on model testing that was called for by policy science pioneers (Almond, 1966; Barzun, 1963; Braybrooke & Lindblom, 1963; Dror, 1971; Easton, 1965b; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hofferbert, 1974; Lasswell, 1951; Lindblom, 2002; Sorzano, 1975). It also starts to correct the profound absence of inquiry into the basic theoretical assumptions regarding public policy and higher education (Almond, 1966; Barzun, 1963; Blum, 1992; etc.). Likewise, the results add to the shallow pool of information on model viability by refocusing attention on model testing. In so doing, it provided future researchers of higher education public policy a methodology for model testing that enhances viability.

Second, results from the research in this study provided an objective baseline for future model testing (Arrow, 1967; Ashby, Churchman, Guetzkow,

Luce, March, Morris, & Stogdill, 1970; Hesse 1966, 1975). This type of testing has important theoretical significance. Namely, this dissertation includes a remedy to testing on frameworks, theories, and models called for by the pioneers (Dror, 1971; Easton, 1965b; Lasswell, 1951). It enhances the theories of modeling and supports future research by demanding—and itself modeling—a process for rigorous model testing through a much needed quantitative, empirical testing of models (Lindblom, 2002). By conducting model testing in this way, this dissertation also exposed the problems associated with survey research on a group across a large geographic area. Likewise, it revealed difficulties with surveying groups with restricted access and a small sample size (Babbie, 1989; Dillman, 1978; Goyder, 1986; Leitner, et.al., 1979; Schleifer, 1986; Zusman & Duby, 1984). Specifically, the surveying of state legislators (LECCs) and stakeholders in higher education policymaking (SHEEOs) was shown to be an arduous and time intensive task. However, the results of this research were strong enough to make assessments on the models and introduce a new model.

This study advanced a hybrid model for future testing. The hybrid model resulted from thorough analysis of the elements of each of the three models under test. It is a combination of frameworks, theories, and models as well as a cross between the systems and stages heuristics of models. The hybrid model suggests that higher education public policymaking is a *political* process of stages. This political process includes the processes of *problem identification* and of solutions (*policy proposals*) leading to selection of a *preferred* policy. This political process likewise demands *stakeholder inclusion* with *value discussions* weaving

throughout. Finally, it describes the policymakers' process of seeking to *empower* policy implementers. Finally, this hybrid model gives researchers an additional tool for modeling and analyzing higher education policymaking.

Summary and Overview

This dissertation examined four primary questions that related to the comparison of the three models across the three major policy issue areas of higher education public policy to determine which model or elements of models State Higher Education Executive Officers and Legislative Education Committee Chairs perceived as accurately reflecting the higher education public policymaking process. The four research questions asked: (1) Which model was perceived as accurately depicting how policymakers produced higher education public policy? (2) Which model was perceived as accurate along major policy issue areas? (3) Which model was perceived as accurate along lines of regional higher education compacts (MHEC, NEBHE, SREB, or WICHE)? (4) Which model was perceived as accurate along lines of systems of higher education governance (CGB, CB, or P/SA)? This study presented inferences about policymaking that included which of the three models might be accurate, which models might be a better model, and which elements might best be combined to create a new model. In determining these answers, the researcher examined which supporting theories might be accurate, which supporting theories might be better theories, and which supporting theories might be best combined to create a new theory or model.

The study also established a method to help reduce the dire consequences associated with poor policy science work, especially work on models of higher education public policymaking, by testing models. While conducting the suggested model testing and examining the inferences made during analysis and discussion, this study also recommended research into a hybrid model that was revealed through the analysis of the results from the survey responses.

This study advanced knowledge by serving as the foundation for the much needed quantitative, empirical testing of models, theories, and frameworks. It adds to and advances information and knowledge in the area of model testing within higher education public policy research where a paucity of information once was. In addition, it initiated the movement to correct the profound absence of inquiry into the basic theoretical assumptions regarding public policy and higher education. Specifically, this study attempted to advance knowledge by: (1) refocusing attention on model testing that was called for by policy science pioneers; (2) establishing a quantitative methodology open to generalizability; (3) addressing the unique nature of higher education public policy by discovering the possible influences of regional compacts, systems of governances, and major policy issue area on policymakers who are ultimately responsible to society for good higher education public policymaking; and (4) presenting a hybrid model for consideration in future higher education policymaking research. This study provided an opportunity to test for the perceived accuracy in the modeling of the process policymakers employ to produce higher education public policy as reported by SHEEOs' and LECCs' responses to a survey. The work began with

an exhaustive review of the literature, Chapter Two, to determine the past and current state of higher education public policy and its study. Included in this review was a description of the tools used for the scientific study of public policy, the schools of thought related to public policy, and the three major policy issues of higher education public policy. The review concluded with an examination of the literature related to methodology. Chapter Three addressed methodology as used in this study. The chapter restates the purpose of the study and the research questions. The chapter continues with a description of the survey development process, the participants, the data collection procedures, and the treatment of the data. Chapter Four details the treatment of the data. The chapter presents the results of the data collection in tables, graphs, and figures with descriptions and inferences. It also answered the research questions. Finally, it discussed the results of data analysis leading to possible interpretations and presented a hybrid model for future testing. Chapter Five carries the interpretations further. In addition, Chapter Five describes the new findings and the implications from this study as well as the limitations and recommendations for future research. The chapter concludes with reflections and observations of the research and the researcher in this study.

CHAPTER TWO

REVIEW OF THE LITERATURE

It is a matter of professional responsibility to make the most effective use of the information at their [policy analysts] disposal while still observing the scruples of professional disinterestedness (Braybrooke & Lindblom, 1963, p. 5)

This literature review responds to the theme that good models are merely abstractions of the public policymaking process and, as Hartmark & Hines (1980) and Braybrooke & Lindblom (1963) point out, policy analysts have a professional obligation to ensure the models accurately reflect existing processes for producing *good* higher education public policy. Without accurate models, correctives to the policymaking process are futile at best, and destructive to society at worse (Bowen, 1977). An inability to accurately portray the public policymaking process can result in bad public policy (Easton, 1965b; Lasswell, 1951). Producing bad public policy has dire consequences for society. Policy analysts have a professional obligation to help improve the policymaking process (Dror, 1971). This study addressed the professional obligation of model testing based on the lack of model testing in current higher education public policy research and analysis. **This study tested the perceived accuracy of three models of public policymaking as applied to higher education and the three major issues of higher education public policy.**

This literature review, divided into six main areas, examines the linkage from abstract to reality, from the model of the policymaking process to the actual process of producing *good* higher education public policy as reported by the SHEEOs and LECCs. The first main area of the literature review starts with a short history of the development of political science and its descendant policy analysis. The history begins with a cursory mention of the earliest methods for studying public policy in Western Civilization. Following this mention of the antiquities is the evolution to a study of the process of policymaking occurring in the late Middle Ages through to the industrial revolution. Finally, the discussion addresses the state of policy science in the United States since the early Twentieth Century. At this time, an explosion in the number of policy scientists and analysts occurred along with a corresponding advent of public policy departments in colleges and universities resulting in the acceptance of policy analysis as the study of the policymaking process and eventual recognition of analysts as a part of that same policymaking process (Almond, 1966; Blum, 1992; Lasswell, 1951).

The second main area of the literature review discusses the normative (abstract "ought to") approach to the study of public policy. Beginning with definitions of frameworks, theories, and models, the discussion continues with a description of the benchmark frameworks then with the new alternatives derived from the benchmarking tools in policy science and policy analysis and ends with an explanation of the five efforts to lend rigor to the methodology of policy science. The third main area of the literature review communicates to the reader the schools of thought on the policymaking process as studied in this dissertation.

Specifically, it informs the reader on Easton's System's Heuristic, Anderson's Stage Heuristic and Dye's seminal work on models of the policymaking process. The discussion finishes with the heuristics of Kingdon, Lindblom, and Lovell and their models of public policymaking.

The fourth main area of the literature review addresses the three major policy issues addressed in higher education public policy today. The discourse on major policy issues traces the history of the issues from the Higher Education Act of 1965 to the present. The three major policy issues are access, affordability, and accountability. Access and its cousin affordability start as major issues with the 1965 Higher Education Act, the amended act of 1972, the subsequent reauthorizations in 1980, 1986, and finally in 1992. These two issues address the opportunities for higher education provided those who historically had not been provided access to affordable public higher education. Accountability starts to venture on the scene in the debates for the 1986 Reauthorizations and is codified in the 1992 Reauthorizations. Accountability addresses both institutional and individual accountability with public funds and public trust.

Section five addresses the literature on the methodology, specifically qualitative content analysis, the state as a unit of analysis, the use of surveys as instruments, and selecting samples and populations. Content analysis is a set of techniques used to analyze text with presentations of findings ranging from tabular presentations to more complex statistical and computer analysis. Most content analysis involves collecting and examining forms of communication for encoded categories and then making inferences about the coded messages and

predictions based on the inferences. The explanation of content analysis describes the three basic problems to content analysis, which are not dissimilar to other research methodologies: sampling, reliability and validity. The section continues with a discussion on the unit of analysis and its selection, the use of sampling, and the use of the survey as the instrument for data collection.

The sixth, and final, main area of the literature review draws together the literature on normative and positive research from areas two and three of the literature review as applied to the three major issues addressed in the fourth main area of the literature review. This area links the literature and it provides the outline for developing and answering the research questions. The research questions seek to determine if the models selected for this dissertation accurately reflect the process for making *good* higher education public policy.

Abstractions that Reflect the Actual Policymaking Processes

Policy science—the art and rigorous discipline of examining the policymaking process and its components—rightly starts its study with the abstract, theoretical, and conceptual ideas about the policy making process (Almond, 1966). In this section is a short history of the development of political science and its descendant policy analysis. The history starts with a cursory mention of the earliest methods for studying public policy. Following this mention of the antiquities is an exposition on the evolution of policy science to a study of the process of policymaking occurring in the late Middle Ages through to the industrial revolution. Finally, the discussion addresses the state of policy

science and advent of policy analysis in the United States since the early Twentieth Century. At this time, an explosion in the number of policy scientists and analysts occurred along with a corresponding advent of public policy departments in colleges and universities resulting in the acceptance of policy analysis and analysts as a part of the policymaking process (Almond, 1966; Blum, 1992; Lasswell, 1951). This main area of the literature review will describe how policy science evolved to a study of relationships in the policymaking process that sought a rigorous discipline based on the abstract ideas of being a multi-discipline, problem-solving, explicitly normative study.

Policy analysts owe their very existence to the interest expressed through the ages towards studying the issues of controlling social groupings, the search for the most favorable method of control, and the best method for attaining the good life (Howlett & Ramesh, 1995). To understand how analysis of public policy currently occurs requires an understanding of the paradigms in use and the process that developed these paradigms.

The history of political science is one of gradual encroachment of ideas rather than the sequential building of scientific study upon scientific study. Yet, the general idea of a science of politics, or at least an accepted general framework for political analysis, is as old as the discipline and promises to remain an enduring part of its professional ethos (Garson, 1974, 1505).

The first study of public policy started in Babylon with Hammurabi's Code of Laws. Hammurabi codified the 'policies' for the public as a response to the use of magicians, astrologers, and charlatans as 'analysts of public policy.' This followed with the rabbinical approach of the Old Testament to the 'analysis' of

laws and social interaction. Together, these form the antecedent of public policy (Barzun, 2000; Chambliss, 1981; Johns, 2000; Redford, 1961; Richardson, 2000; Seagle, 1971; Strauss, 1987). This ancient study of laws as the originate public policy gave way to the classical political theories of Greece and Rome (Hatch, 1993). "Actually, classical political theory is more a political sociology and psychology and a normative political theory than it is a theory of the political process" (Almond, 1966, p. 871). The study of laws and their effects took on importance as a pseudo-scientific endeavor because rulers wanted advisors to predict (analysts to analyze) the effects of their policy (Barzun, 2000; Hatch, 1993; Strauss, 1987). The decision making process they used, perhaps crude by modern standards, and the use of advisors "stressed the interrelations of social stratification with the political system as the basis of political classification and political change, leaving the internal operations of the political process in a relatively unelaborated form" (Almond, 1966, p. 871).

Not until Machiavelli wrote The Prince in 1532 does Western Civilization begin to view the interrelation between politics, public policies, and the social development of the public as worthy of study (Barzun, 2000; Birkland, 2000; Bull, 1999; Strauss, 1987). Machiavelli's work influenced anthropology, sociology, and philosophy; it influenced all aspects of the study of public behavior within the court of the monarch and the subjects of the court (Lerner, Burns, & Meacham, 1998; Strauss, 1987; Wilson, 1998). Perhaps because of the actual ignorance of the public in the matters of state, or perhaps because of the revolt of the public against such a stereotype, the study of decision making,

specifically in the realm of public policy, started to gain favor outside the monarchical court (Barzun, 2000; Lerner, Burns, & Meacham, 1998; Strauss, 1987). The centerpiece of this study was no longer on classification of social strata and the efforts to keep classes separate.

The study of public policy began to focus on process and the internal machinations to develop public policy. "This development of political [science] was brought about by British constitutional experience as interpreted by such theorists as Harrington, Lilburne, and Locke and later by Montesquieu, who introduced the familiar threefold separation-of-powers conception" (Almond, 1966, p. 871). These European theorists of the seventeenth and eighteenth centuries begin to analyze public policy in a much more sophisticated manner by considering the structure of society (the public) and the process of making public policy. The European theorists and their theories also influenced the politics of the New World, the burgeoning United States. "The writers of *The Federalists Papers* [Alexander Hamilton, James Madison, and John Jay] go farther in analytical sophistication" (Almond, 1966, p. 872).

Hamilton, Jay, and Madison "were forced to think more explicitly about the relationships" (Almond, 1966, p. 872) in the policymaking process and developed a more critical methodology that relied on an underlying assumption of Democracy and public involvement in policymaking (Barzun, 2000; Dewey, 1906; Lasswell, 1951; Strauss, 1987). The involvement demanded each participant have at least a rudimentary understanding of the process of policymaking (Dewey, 1906; Strauss, 1987). The early policy scientists of the

United States were educated men interested in preserving the new democracy formed in the United States through policy awareness and instruction (Barzun, 2000; Strauss, 1987). "We have seen that a community or social group sustains itself through continuous self-renewal, and that this renewal takes place by means of the educational growth...education is thus a fostering, a nurturing, a cultivating process" that transfers to the young the ideals of the state (Dewey, 1906, 10). In the United States, the ideals of Democracy demanded formalized education and a formalized methodology for research and teaching of the new discoveries related to public policy; the ideals demanded a policy science (Almond, 1966; Blum, 1992; Lasswell, 1951; Strauss, 1987). Colleges and Universities began to offer courses in politics as part of the Democratic experiment that was the United States (Almond, 1966; Barzun, 2000; Blum, 1992).

Abstractions began to form in this new study, this policy science (Easton, 1965a, 1965b, 1990; Etzioni, 1968; Lasswell, 1951; Merton, 1949; Sorzano, 1975) with an emphasis on social theory, social interaction, social structure, and method—the pseudo-science took on the characteristics of actual scientific endeavor. "The policy sciences include (1) the methods by which policy process is investigated, (2) the results of the study of policy, and (3) the findings of the disciplines making the most important contributions to the intelligence needs of the time" (Lasswell, 1951, p. 4). Policy science evolved from Hammurabi's Code of Laws as a response to the use of magicians, astrologers, and charlatans to a systematic, methodological, rigorous examination of the interactions, reactions, and processes for effecting and influencing the lives of the public. In this

endeavor to gain an identity in the world of research and science, policy science borrowed abstractions (frameworks, theories, and models) from many other disciplines.

Policy scientists in the United States during the early Twentieth Century developed abstractions to help explain the public policy process as it was presently occurring (Sorzano, 1975). Among the proponents of these abstractions were members of the scientific community, economists, and public administrators (Leiserson, 1965) who brought with them their methodological paradigms (abstractions-frameworks, theories, and models) for conducting rigorous examinations. These paradigms were normative in that they prescribed how public policy *ought* to occur (Almond, 1966; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hatch, 1993; Sorzano, 1975). The normative approach relied heavily on a belief that an answer to a public dilemma does exist, and that policy science can discover the root cause of the problem and prescribe a solution.

"Policy science was expected to replace traditional political studies, integrating the study of political theory and political practice without falling into the sterility of formal, legal studies" (Howlett & Ramesh, 1995, p. 3). This meant lawyers would likely not be the forefathers of American Political Science, instead theorists and social scientists would lead the burgeoning field. Among those recognized as pioneers in the development of the abstractions of policy science and in bringing into focus a united policy science studies in the United States were Anderson, Clarke, Dye, Easton, Lasswell, Lerner, Lindblom, Lowi, Merton,

Nagel, Truman, and Wildavsky. Lasswell had the most influence on the structure of policy science and its evolution as a rigorous, empirical, scientific endeavor to explain the social interaction between the politicians, the public, the policies, and the policymaking process. He proposed that policy science "had three distinct characteristics which would set it apart from earlier approaches: it would be multi-disciplinary, problem solving, and explicitly normative...the general orientations towards the activities of governments suggested by Lasswell remain with us" (Howlett & Ramesh, 1995, p. 3). What do these abstract ideas of multi-discipline, problem-solving, and explicitly normative mean and how do they apply to actual policymaking process? In the remaining portion of this section is a response to this question, starting with the idea of multi-discipline.

Far from wanting to ignore the important influence of the many bodies of science that participated in the formation of the policy science, early pioneers in the study of public policy in the United States sought to bring together ideas from many disciplines. Early pioneers in policy science sought a multi-disciplinary field of study (Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Thompson, Ellis, & Wildavsky, 1990). This multi-disciplinary approach was an attempt to create a new form of political study that relied less on the narrow scope of studying politics and politicians. The multi-disciplinary approach would consider the breadth of policies brought forward for consideration, and the social interaction between the politicians, the public, the policies, and the policymaking process (Almond, 1966; Birkland, 2001; Blum, 1992; Garson, 1974; Gupta, 2001; Howlett & Ramesh, 1995; Sabatier, 1995;

Salisbury, 1995; Theodoulou, 1995; Thompson, Ellis, & Wildavsky, 1990; Wahlke, 1992). This approach required an understanding of problem solving.

Using a problem solving method implied policy scientists would approach each public problem as though it had a definitive solution. Policy science would have to orient itself to the discovery of real-world solutions to real-world problems "and not engage in purely academic and often sterile debates that, for example, characterized interpretation of classical and sometimes obscure political texts" (Howlett & Ramesh, 1995, p. 3). Problem solving, for policy science and its analysts, was to be grounded in reality, it was to be a search for concrete solutions. It was to be an applied science with practical, and tangible recommendations for solving problems (Anderson, 1975, 1990; Dror, 1971; Bowen, 1977; Birkland, 2001; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Heller, 2001; Lindblom, 1959, 1968, 1979, 1982; Lindblom & Cohen, 1979; Kingdon, 1995; Linder & Peters, 1990; Lovell & Gill, 1997; Lowi, 1964, 1970, 1972; Lutz, 1988; Mazmanian & Sabatier, 1981; Sabatier, 1999; Theodoulou & Cahn, 1995; Thompson, Ellis, & Wildavsky, 1990). Even with tangible, concrete answers to the problems, disagreement regarding the application of a 'best fit' solution would ensue. Policy science and its analysts would have to answer the question, is the solution presented the right solution to the problem? This goes to Lasswell's third concern for an explicitly normative approach.

"By explicitly normative, Lasswell meant policy science should not be cloaked in the guise of 'scientific objectivity,' but should recognize the

impossibility of separating goals and means, or values and techniques, in the study of government actions” (Howlett & Ramesh, 1995, p. 3). This required an emphasis on method, and Lasswell sought an influential methodology, which at the time was quantitative. Lasswell commented, “the disciplines which possessed quantitative methods were the ones that rose most rapidly in influence” (Lasswell, 1951, p. 5). “The rise of economists and psychometricians seemed to indicate that the closer the social scientist came to the methods of physical science the more certain his methods would be of acceptance” (Lasswell, 1951, p. 3). Since the process of policymaking was so extremely complex, Lasswell, true to his explicitly normative approach, highly recommended the use of models.

“When one thinks in basic policy terms, it is essential to operate with models whose elaboration is sufficient to enable the investigator to deal with complex institutional situations” (Lasswell, 1951, p. 9). The idea of models as abstract representations of reality still permeate the study of public policy (Almond, 1966; Anderson, 1975, 1990; Birkland, 2001; Bowen 1977; Dror, 1971; Dye, 1972, 2001; Easton, 1965b, 1965; Goodchild, Lovell, Hines, Gill, 1997; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Heller, 2001; Leiserson, 1965; Lindblom, 1959, 1968, 1979, 1982; Lindblom & Cohen, 1979; Kingdon, 1995; Linder & Peters, 1990; Lovell & Gill, 1997; Lowi, 1964, 1970, 1972; Lutz, 1988; Mazmanian & Sabatier, 1981; Sabatier, 1999; Theodoulou & Cahn, 1995; Thompson, Ellis, & Wildavsky, 1990). The abstractions themselves—not just models but the theories, concepts, and

frameworks that serve to produce the models—received further study in the rapidly increasing field of policy science and policy analysis.

This main area of the literature review described how policy science evolved to a study of relationships in the policymaking process that sought a rigorous discipline based on the abstract ideas of being a multi-discipline, problem-solving, explicitly normative study. Policy science directed itself to the study of the social interaction between the politicians, the public, the policies, and the policymaking process. What the scientific study of policy needed were tools based on normative ideas of frameworks, theories, and models for the conduct of research into public policymaking. The next main area of the literature review discusses the tools for the scientific study of public policy.

Tools for the Scientific Study of Public Policy

In this section, the second main area of the literature review, is the discussion on the tools used in the normative (abstract, “ought to”) approach to the study of public policy. Beginning with definitions of frameworks, theories, and models, the discussion continues with a description of the benchmark frameworks. The discussion continues with the new alternatives derived from the benchmarkings tools in policy science and policy analysis and ends with an explanation of the five efforts to lend rigor to the methodology of policy science. A discussion of the benchmark frameworks and methods for studying policymaking is required because it provides understanding for the development of the future systems of abstraction currently in vogue, and the discourse

associated with the evolution (Ostrom, 1999; Sabatier, 1999). First is a brief discussion and definitions of the three levels of analysis: frameworks, theories, and models.

Frameworks define the actors, variables, units of analysis, levels of analysis, and scope for grounding research, providing organization, and arranging inquiries into systems (Schlager, 1999) and provide for the development of theories. Noted public policy researcher, Elinor Ostrom (1999) described the functions of frameworks as organizers for diagnostic and prescriptive inquiry. "They provide the most general list of variables that should be used to analyze all types of institutional arrangements. Frameworks provide a metatheoretical language that can be used to compare theories" (Ostrom, 1999, 39-40). *The framework is the first level of analysis and from the framework theories develop.* The framework sets the boundaries. "They attempt to identify the *universal* elements that any theory relevant to the same kind of phenomena would need to include" (Ostrom, 1999, p. 40). Aside from prescribing the language and setting the boundaries, frameworks provide a forum for the interaction of theories and their interplay with concrete, real-world occurrences. "Many differences in surface reality can result from the way these variables combine with or interact with one another" (Ostrom, 1999, p. 40). The unique interaction allows for variety in theoretical research while still ensuring a connection with basic constructs, such as language and boundaries. "Thus, the elements contained in a framework help analysts generate the questions that need to be addressed when they conduct an analysis" (Ostrom, 1999, p. 40). Frameworks provide structure

and flexibility where needed along with broad, overarching principles for the development of theories (Ostrom, 1999; Schlager, 1999). Although the theory may not explicitly state its antecedent framework, frameworks provide for the development of theories,

“The development and use of *theories* enable the analyst to specify which elements of the framework are particularly relevant to certain kinds of questions and to make general working assumptions about these elements” (Ostrom, 1999, p. 40). Theories establish the rules governing actions or activities and open the door for the researcher to examine and report on observations of interest.

Theories place value on the important variables of a framework. “In the exact sciences, a theory is a collection of theorems; but the theorems have to be translatable into assertions about the tangible world and these assertions should be verifiable within certain limits of accuracy” (Rapoport, 1958, p. 973). A theory describes events, incidents, and activities of the observable, tangible, real-world with the purpose of describing the real-world and even predicting future likely outcomes. “Thus, theories focus on a framework and make specific assumptions that are necessary for an analyst to diagnose a phenomenon, explain its processes, and predict outcomes” (Ostrom, 1999, p. 40).

Theories are the first testable aspect of representations of real-world, observable phenomena. Theories describe phenomena, they explain the phenomena. From a theory derive formulations and postulates about phenomena (Rapoport, 1958). Theories further guide the researcher from the general, broad, contextual boundaries of the framework to the narrower. At times, theories guide

the researcher towards predictions. Of note, "several theories are usually compatible with any framework" (Ostrom, 1999, p. 40). Theories, while the first testable aspect of representations of real-world, observable phenomena, require testing.

In the testing of the theory, "one must be able to choose some assumptions about how the variables are related which reasonably reflect 'reality'" (Rapoport, 1958, p. 978). Before the theory can be tested, "there must be sharply defined, quantitative variables singled out for study" (Rapoport, 1958, p. 977). "It goes without saying that *ultimately* the findings of a theory must somehow be translated into real predictions and observations" (Rapoport, 1958, p. 988). This translation demands the theory fix, establish, and test the parameters. Models help fix and test the parameters of the theory.

Researchers design models to accurately reflect and limit the parameters and variables of the real world, to accurately reflect the theory from which it derives. In addition, models assist in testing theories. "The development and use of *models* makes precise assumptions about a limited set of parameters and variables" (Ostrom, 1999, p. 40). They resemble real-world phenomena. After fixing the parameters within the model, exploration of the model as an accurate representation begins as well as the testing of the theory. *A model is much more than the prediction of the relation among the parameters and variables* (Rapoport, 1958), *it also provides understanding of the complexities of the phenomena it models.*

Models reduce the complexities of the phenomena of interest, ultimately, allowing us to “test specific parts of a theory” (Schlager, 1999, p. 255), to test assumptions made by the theory. “Logic, mathematics, game theory, experimentation and simulation, and other means are used to explore systematically the consequences of these assumptions in a limited set of outcomes” (Ostrom, 1999, p. 40). Models limit the real world environment to a manageable and useful representation. However, “every model of a real system is in one sense second-rate” (Ashby, 1970, p. 94) because it really is not the whole system that researchers intend to test. Therefore, the model as a microenvironment is an excellent tool for research, but it is inferior to the environment it models. Yet, “we make models for their convenience” (Ashby, 1970, p. 94) and as a manageable way to test a theory about real-world environments. What is of most interest then is discovering when a model accurately reflects reality. “A model is a set of assumptions often referring to a highly idealized situation, from which assumptions about the relations to be observed are *derived*, to be compared with observations. Agreement with observations corroborates the model” (Rapoport, 1958, p. 976). When is a model an accurate depiction of reality?

In their 1967 symposium at the Ohio State University on model building in the behavioral science, Ashby, Churchman, Guetzkow, Luce, March, Morris, & Stogdill (1970) sought to answer that very same question. They examined the model from the viewpoint of the scholar, the person who would ultimately test the model. They described the model as a representation of “the variables and

relationships that will be intellectually manageable, and at the same time will constitute a valid representation of the real system" (Stogdill, 1970, p. 4). They concluded that a model accurately reflects reality "when all the strongest efforts have been made to show that the model is deceptive, and the model survives those efforts" (Churchman, 1970, p. 136). What remains to be discovered is the corroboration between the model and its predictions with the observable, tangible, real world (Rapoport, 1958).

The accuracy of a model depends on the thoroughness of the theory from which it emanates and the thoroughness of the theory depends on the completeness of the antecedent framework to define the actors, variables, units of analysis, levels of analysis, and scope of the environment of interest. Models as accurate portrayals of real-world situations by necessity rely on complete frameworks. What were the earliest frameworks, the benchmarks, for policy science and the policy analyst?

Rational-Comprehensive Behavioralist Framework

This section begins with a discussion of the rational-comprehensive behavioralist framework and its origins in the study of public policy. Next is a review of the actors, variables, units of analysis, levels of analysis, and scope of the rational-comprehensive behavioralist framework. Finally, the section concludes with an explanation of the two poles upon which the rational-comprehensive behavioralist framework drew. The earliest frameworks for examining the public policymaking process borrowed from the ideas of economics and rationality. Economics and rationality used quantitative analysis

and based its underlying process on a basic assumption of rational human behavior. This assumption, relating to decision-making, predicted human behavior as a rational method of selecting the optimal solution to problems (Birkland, 2001; Bowen, 1977; Dror, 1971; Dye, 1972, 2001; Gupta, 2001; Lasswell, 1951; Merton, 1957; Nagel, 1979, 1989, 1998; Sabatier, 1999; Yeakey, 1993). While it is important to remember that the study of public policy is a systematic, methodological, approach to improving the policymaking process (Dye, 1972; Easton, 1965b; Gupta, 2001; Lasswell, 1951, 1956; Nagel, 1979, 1988, 1998) one must also remember that policymaking is first a problem-solving process. The first framework for the study of public policymaking, the rational-comprehensive behaviorist framework, sought the most logical, rational, and optimal choice for solving a problem from amongst an unlimited set of solutions.

The rational-comprehensive framework defined the actors as those involved in the decision-making process. This includes the policymaker, the stakeholder, the policy scientist/analysis, and the public writ large. However, the primary actor is the decision maker. The framework defined the primary variables as the problems facing the decision maker, the entire realm of solutions (which they left unbounded) and their environment. The framework defined the units of analysis as the arena in which decision-making occurred and the levels of analysis as the outcome of the decision maker, who it was assumed used a rational decision-making process and was therefore predictable (Dye, 1972; Easton, 1965b; Gupta, 2001; Lasswell, 1951, 1956; Nagel, 1979, 1988, 1998). The scope was also unbounded which led to later developments specifically addressing the

scope such as Easton's Systems Approach to the public policymaking process and Anderson's Stage Approach to the public policymaking process. It is interesting to note how this initial framework seemed internally contradictory (Lindblom, 1959) in that it used the decision-maker as the unit of analysis but could not predict with consistent accuracy, or at times with any accuracy, the outcome—the decision maker seemed to act (decide) irrationally. This internal conflict was due in part to the bi-polar development of the framework.

The initial framework for studying public policymaking drew upon two poles. The first pole sought "to find verifiable propositions or working assumptions about political activity which, like the law of gravity or the laws of motions, transcend time, and technology and culture variations" (Redford, 1961, p. 755). This pole was the rational-comprehensive aspect to the framework. The second pole sought to "work with the realities and the problems of our day. We seek knowledge of contemporary systems and subsystems or of the behavior of men within them" (Redford, 1961, p. 755). This second pole was the behavioralist aspect to the framework.

The behavioralist focuses his attention on persons acting politically instead of an institutions, events or ideologies...the behavioralist has been interested also in methodology, seeking on the one hand for preciseness and empirical testing characteristic of exact science and on the other for systematic theory. He uses contemporary data. He finds common grounds of interest with psychologists, sociologists, and cultural anthropologists—groups that are also interested in human behavior (Redford, 1961, 756).

While a seemingly dichotomous and internally inconsistent framework from which to base theories and models of the public policymaking process

(Kingdon, 1995; Lindblom, 1959; Sabatier, 1999), the rational-comprehensive behavioralist framework still exists today as a normative framework describing how the public policymaking process ought to work. So, too, does its counterpart benchmark framework of case study.

Case Study or Qualitative Research

This section of the second main area of the literature review addresses the development of case study as the counterpart benchmark framework in the advent of Twentieth Century policy science and policy analysis. This section describes the actors, variables, units of analysis, levels of analysis, and scope of the case study framework and its differences with the rational-comprehensive behavioralist framework. The second framework, case study, sought to add a more 'realistic' and human component to the decision making process that some early policy scientists thought the rational-comprehensive behavioralist framework lacked (Atkins, 1990; Derrida, 1978; Dewey, 1906; Dye, 1972, 2000; Gall, Borg, & Gall, 1996; Krippendorff, 1980; Lazarsfeld & Barton, 1951; Leiserson, 1965; Majchrzak, 1984; Rapoport, 1958; Weber, 1985). It sought to explain the public policymaking process in more broad and general terms because the process itself was not actually rational; the process of public policymaking did not always select the optimal solution, nor did it consider the full option of solutions (Derrida, 1978; Dye, 1972; Gall, Borg, & Gall, 1996; Krippendorff, 1980; Leiserson, 1965; Redford, 1961; Weber, 1985). Case study maintained the same definitions of actors, variables, units and levels of analysis as the rational-comprehensive behavioralist framework but had a different definition of scope (Gall, Borg, &

Gall, 1996; Majchrzak, 1984; Weber, 1985). The scope for the case study was limited to the actors immediately involved in the research, or the variables of interest. In other words, the scope was limited and out of necessity was self-bounded by the researcher.

The frameworks differed primarily because the case study method was a kind of history that set a context found lacking in the rational-comprehensive behavioralist framework. Case study was seen "as a capsule of reality" designed originally as a teaching tool for future policy scientists (Dewey, 1906; Redford, 1961). Although the individual case studies did not allow researchers as much freedom to generalize, they were considered as a more realistic portrayal of the public policymaking process because of their heavy reliance on descriptions of the actors, variables, units and levels of analysis and the scope of the study. "Many regard the cases as better indicators of behavior than the artificial models, working hypotheses, and quantitative measures used by those normally called behavioralists" (Redford, 1961, 756-7). While case-studies were not initially fully accepted into the mainstream because of Lasswell's contention they lacked methodological rigor (Lasswell, 1951), case-study research did continue to accompany the developing field of policy science and provide excellent data for analyzing public policies.

These two frameworks, the rational-comprehensive behavioralist framework and the case-study framework, set the foundation for the future of policy science and analysis. They established the boundaries for theories to set the rules governing actions or activities and to examine and report on observations

of interest. These frameworks opened the door for placing values on the important variables of the framework. Policy scientists did not immediately begin to develop and test theories within the two frameworks. Policy scientists and policy analysts began to advocate for policies, especially in light of the concurrent world war and social programs of the 1930's and 1940s and the changing nature of politics in the 1950s (Almond, 1966; Dye, 1972; Easton, 1965a, 1965b; Lasswell, 1951; Leiserson, 1965; Lindblom, 1959; Rapoport, 1958; Redford, 1961).

Instead, behavioralists interested in the new policy science began to lend rigor to the methodology that was later employed in theory building. These included: (1) Probability and Causation, (2) Use of Mathematical Models, (3) Qualitative Analysis, (4) Improving Interviewing techniques, and (5) Use of the Survey in collecting data. In this final portion is a discussion on the five areas mentioned that responded to Lasswell's call for rigorous methodology in the public sciences.

Five Efforts to Lend Rigor to the Methodology of Policy Science

In this section are five discussions on the efforts to lend rigor to the methodology of the emerging policy science in Twentieth Century United States. First, behavioralists sought to explain the relationship between causality and probability and its merit in the social sciences juxtaposed with the physical sciences. The second supporting argument for enhancing the methodology of policy science stemmed from work into producing mathematical models for social science. The third supporting argument for enhancing the methodology of policy

science considered the effectiveness of qualitative research in providing the starting point for public policymaking research. The fourth supporting argument for enhancing the methodology of policy science took into account the value added through interviews and how to ensure rigor. The final supporting argument for enhancing the methodology of policy science deliberated on the survey as the eminent data collection device for public policy studies and how to ensure the survey supported the research with thoroughness.

Reichenbach (1951) sought to explain the relationship between causality and probability and its merit in the social sciences juxtaposed with the physical sciences. Starting with the understanding that physical laws describe the cause of an action he wrote, "statistical laws are not 'less dignified' than causal laws—they are more general forms, among which the causal law represents the special form of statistical correlations holding for 100 percent of the cases. Moreover, causal laws, at least in quantitative form, are never found to hold strictly in observational terms. We do not observe a 100 percent validity; we notice exceptions" (Reichenbach, 1951, p. 122). Causal laws, derived from the theorems presented to test the laws, start as predictions based on a cluster of observations. Whether the cluster contained a sufficient number of observations relates to the verifiability of the theorem, as well as the astuteness of the observer and the repeatability of the observed action. Causal laws in public policy are less likely to achieve 100 percent validity because of the diverse and complex nature of public policymaking. "Exactness is not the fault of methods; it springs from subject matter; from dealing with complex and overlapping phenomena which do not

exhibit the simple structure of the motions of planets and stars, but rather recall the interwoven relationship" (Reichenbach, 1951, p. 122).

Reichenbach argued that the concept of probability could be applied to policy science in the same manner it was applied to the physical sciences. However, the problem lay in "suitable definitions of concepts and of selecting mathematical structures which lend themselves to an adequate description of sociological phenomena" (Reichenbach, 1951, p. 127). The quantitative methods sought by Lasswell could bolster the methodology of the policy science if the policy scientists could adequately operationalize terms and agree upon definitions across the field (Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986). In this section was a discussion on the relationship between causality and probability. Cause holds for 100 percent of the cases observed while probability held for fewer than 100 percent. Causal laws in public policy are less likely to achieve 100 percent validity because of the diverse and complex nature of public policymaking. Reichenbach argued that the concept of probability could be applied to policy science in the same manner it was applied to the physical sciences, but not with 100 percent representation. The next section adds to the argument on causality and probability as an effort to lend rigor to the methodology of policy science by examining mathematical models.

The second supporting argument for enhancing the methodology of policy science stemmed from work into producing mathematical models for social science, especially work conducted by Arrow (1967), Ashby, Churchman, Guetzkow, Luce, March, Morris, & Stogdill (1970), and Hesse (1966, 1975). The

connection between these works lies in the desire to connect the modeling processes of the natural or physical sciences with the social and policy sciences. This section starts with a description of the benefit of models in the natural or physical sciences and how those benefits transfer to the social and policy sciences. Next is an explanation of mathematical models and their dependence on theory. Finally is a discussion of the principle of rationality and its applicable modeling capabilities, especially in the social and policy sciences.

First, it is important to note the benefits of modeling for the natural or physical sciences. Hesse (1975) mentions these four primary benefits: (1) models clarify ambiguities and suggest possible future developments, (2) models provide for predictions, even to other related fields of study (3) models provide support for the continuous testing and improving of theories, and (4) the model can prove the theory and could even predict the existence of a theory. The models in the natural or physical sciences are "of continuous evolution, proceeding by rational, though not necessarily deductive, steps from theory to theory, rather than one of revolutionary leaps" (Hesse, 1975, p. 9). Models develop an objective lens through which the researcher can observe the phenomena of interest and test theory. Through this observation, "the characteristics of prediction, test, and subsequent modification of theory" occurs, bolstering or rejecting the theory (Hesse, 1975, 13). Models in the social and policy sciences have similar, though not exactly the same benefits.

Models do simplify the complexities of the phenomena of interest (Schlager, 1999), however the complexity of the actors limits their predictive

ability for future developments. Models of social science can be used to transfer ideas across fields but again, they have limited predictive ability. Models do provide support for the continuous testing and improvement of theories (Ashby, 1970, Ostrom, 1999, Rapoport, 1958; Schlager, 1999; Stogdill, 1970). Models do provide support for the theories from which they stem and could predict the existence of a yet described or discovered theory (Hesse, 1975, Schlager, 1999). Where models of social and policy science do not match with the models of natural or physical science is in the predictive abilities, due primarily to the complexity of the actors involved in public policymaking. This fact provided guidance for the development of the social or policy science models using the same criteria as in the development of models for the natural or physical sciences. These criteria relied on mathematics (Dror, 1971; Lasswell, 1951; Leiserson, 1965, 1975; Nagel, 1975a, 1975b, 1979a, 1979b, 1980, 1989, 1998; Thomson, Ellis, & Wildavsky, 1990).

Mathematics, as a language, predicates models of the natural or physical sciences. As a language, it will likewise predicate models of the social sciences. "Any meaningful proposition can be expressed in a suitable mathematical form, and any generalizations about social behavior can be formulated mathematically. Furthermore, it is simply not true that mathematics is useful only in quantitative analysis. But the whole field of mathematical or symbolic logic is purely qualitative" (Arrow, 1951, p. 129). This belief on the part of mathematical modelers supported the desires of the policy science world, and especially Lasswell, in developing rigorous methodologies for the study of public

policymaking. The caveat to the support of mathematical models to the social or policy sciences lie in the definitions of the terms and symbols used by social and policy science. "The very ambiguity and confusion of ordinary speech give rise to a richness of meaning which surpasses for the social scientist the limited resources of mathematics, in which each symbol has only one meaning" (Arrow, 1951, p. 130). This did not dissuade policy science modelers (Lasswell, 1951; Leiserson, 1965, 1975; Rapoport, 1958; Redford, 1961). Instead, it turned them towards their initial desire for quantitative research methodologies that lessened the possibilities for multiple meanings. They sought to develop models of the policymaking process mathematically (Dror, 1971; Lasswell, 1951; Leiserson, 1965, 1975; Nagel, 1975a, 1975b, 1979a, 1979b, 1980, 1989, 1998; Thomson, Ellis, & Wildavsky, 1990), relying heavily on the models of economics. For greater clarity, "the explicit formulation of theories in mathematical terms" (Arrow, 1951, p. 132) resulted in a single-minded attempt to stay the course with quantitative methodologies. In addition, they held to the principle of rationality to explain the decision-making process at the center of public policymaking.

"A postulate frequently encountered in theoretical economics and elsewhere in social theory is that the behavior of the individual or group [the actor] can be described by saying that the individual or group is seeking to maximize some quantity. Behavior of this type is frequently referred to as rational" (Arrow, 1951, p. 135). Based on the models of economics which dictate that for each situation in each given time period, with unlimited solutions available, the consequence of each solution, once measured, is weighed against all

others and the one solution with maximum benefit and minimum cost is selected (Dror, 1971; Nagel, 1975a, 1975b, 1979a, 1979b, 1980, 1989, 1998; Thomson, Ellis, & Wildavsky, 1990). However, as the mathematical models of the social sciences showed (Arrow, 1951), the principle of rationality applied to a group of decision-makers could result in more than one solution with maximum benefit and minimum cost. "Thus, each individual will be concerned with the effect of his action [to maximize benefit and minimize cost] on others, and no determinate solution will be possible" (Arrow, 1951, p. 137). This seeming dilemma to the rational-comprehensive behavioralist approach was not daunting to the early policy scientists because "no sweeping principle [was] erected as a rival to that of rationality" (Arrow, 1951, p. 137). In other words, the principle of rationality, though not completely accurate, was the best currently available normative method for examining the public policymaking process and the decision-making associated with it.

The effects of mathematical modeling on the social and policy sciences were far reaching. With the exception of predictive ability, the effect of mathematical model was equally supportive to the social and policy sciences as it was to the natural or physical sciences. The models interacted well with the frameworks, the phenomenon of interest, and the observer while at the same time enhanced the likelihood of discovering theories related to the public policymaking process. The models provided a venue for empirical testing.

In this section on mathematical modeling, the literature points out that models in the social and policy sciences have similar, though not exactly the same

benefits. Where models of social and policy science do not match with the models of natural or physical science is in the predictive abilities, due primarily to the complexity of the actors involved in public policymaking. This fact provided guidance for the development of the social or policy science models using the same criteria as in the development of models for the natural or physical sciences. The effect of mathematical modeling on the social and policy sciences were far reaching. The caveat to the support of mathematical models to the social or policy sciences lay in the definitions of the terms and symbols used by social and policy science in the qualitative research. How did this support for quantitative research models bode for the qualitative researcher?

The third supporting argument for enhancing the methodology of policy science considered the effectiveness of qualitative research in providing the starting point for public policymaking research. In this section on the argument that qualitative research provides, or least strengthens, the groundwork for quantitative research is a discussion on requirements for a good, concrete classification system that requires articulating categories and measurements for variables, logical correctness, adaptation of the structure to the situation and to the respondents frame of reference and the use of indices (Babbie; 1990; Holsti, 1969; Hursh-César, 1981; Krippendorff, 1980; Majchrzak, 1984; Vaughan & Buss, 1998; Wasson, 1969; Weber, 1985; Yin, 1994). "There is a direct line of logical continuity from qualitative classification to the most rigorous forms of measurement, by way of intermediate devices of systematic rankings, ranking scales, multidimensional classifications, typologies, and simple quantitative

indices" (Lazarsfeld & Barton, 1951, p. 155). Qualitative research, with a design on classification as a primary undercurrent to the presentation of qualitative research, provides an invaluable tool for the quantitative research by producing specific rankings, scales, multidimensional approaches, and indices. Quantitative research can test the rankings, scales, multidimensional approaches, and indices in more direct ways that allow for generalizability and possibly predictions in later research. Qualitative need not necessarily occur before quantitative to establish variables however, the value of qualitative research in discovering and relating themes is invaluable to quantitative research systematically codifying the forms of measurement such as rankings, scales, multidimensional approaches, and indices. "Before we can investigate the presence or absence of some attribute in a person or social situation, or before we can rank an object or measure them in terms of some variable, we must form the concept of that variable" and qualitative research, "in all its richness of sense-data" helps in deciding "what attributes of the concrete items we wish to observe and measure" (Lazarsfeld & Barton, 1951, p. 155). It does so by first intuitively developing a classification system and then seeking to discover the classification system in four points: (1) articulation, (2) logical correctness, (3) adaptable to situation, and (4) adaptable to respondent frame of reference.

Articulation demands "the classification should proceed in steps from the general to the specific. The basic purpose of classification is to simplify the handling of a great number of individual items by putting them into a smaller number of groupings, each group consisting of items which act more or less alike

in relation to the problem being studied” (Lazarsfeld & Barton, 1951, 156-7).

Qualitative research focuses on the themes, the groupings of a great number of items into a smaller number of groups, associated with the problem being studied (Atkins, 1990; Derrida, 1978; Weber, 1985). “One of the main characteristics of qualitative research is its focus on the intensive study of specific instances of a phenomenon” (Gall, Borg, & Gall, 1996, p. 543). “It is not always easy to fit detailed categories together to form an articulated system” (Lazarsfeld & Barton, 1951, p. 158). However, the techniques associated with qualitative research provide the groundwork for articulation that quantitative research can test more fully.

Logical correctness implies that a classification “provides exhaustive and mutually exclusive categories at each step of the classification” (Lazarsfeld & Barton, 1951, p. 158). By developing these unique categories, and by ensuring through qualitative research methodologies that the categories are exclusive mutually, the qualitative researcher presents to the quantitative researcher clear variables of phenomena to be studied. Mutual exclusiveness means that there should be one and only one place to put an item within a given classification system (Atkins, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Lazarsfeld & Barton, 1951). With mutual exclusiveness, quantitative researchers can examine ‘pure’ classifications without fear of unaccounted variables, which is paramount for their descriptions, generalizability, and predictions (Atkins, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Krippendorff, 1980; Majchrzak, 1984; Weber, 1985). Multidimensional classification occurs when “categories belong to various

dimensions and they must not be lumped together. If one is interested in classifying programs in terms of all these aspects simultaneously, a multidimensional classification must be set up" (Lazarsfeld & Barton, 1951, 158-9). While seemingly contradictory to the idea of mutual exclusivity, multidimensional classifications use the existing classifications and apply more than one to the phenomena to be studied. Qualitative research concerns itself with this aspect of research making it the logical precursor for quantitative research into the classifications (Atkins, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Krippendorf, 1980; Majchrzak, 1984; Weber, 1985).

"But now one comes to the heart of the matter: how to set up those particular categories which will be best adapted to the material and problem to be studied" (Lazarsfeld & Barton, 1951, p. 159)? In many situations, the researcher uses everyday terminology to reduce the likelihood of misinterpretation (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Krippendorf, 1980; Lazarsfeld & Barton, 1951; Majchrzak, 1984; Weber, 1985). At times, unique terminology is required (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Krippendorf, 1980; Lazarsfeld & Barton, 1951; Majchrzak, 1984; Weber, 1985), and this is where qualitative research methods offer their greatest service to the study of a phenomenon. "It is usually not possible to arrive at a satisfactory classification system simply by grouping items which appear similar in content" (Lazarsfeld & Barton, 1951, p. 159). Therefore, the use of content analysis (Atkins, 1990; Babbie, 1990; Derrida, 1978; Krippendorf, 1980; Weber, 1985) allows for the "concrete picture or model of the whole situation to which

the reporters refer" (Lazarsfeld & Barton, 1951, p. 159). The work of the qualitative researcher then is to examine fully the phenomenon, the environments in which the phenomenon exist, the historical context of the phenomenon, and as many of the tangential and applicable aspects of the phenomenon to develop the component groupings which then become the item of interest for the quantitative researcher (Lazarsfeld & Barton, 1951). Of course, these classifications rely on the respondent's frame of reference, the fourth and final aspect to developing a classification system.

Respondents may not respond in a manner the reporter anticipated, or in a manner that is consistent with the classifications established. "But if the incompleteness and vagueness are inherent in the respondent's definition of the situation, they cannot be eliminated and one may not want to eliminate them (Lazarsfeld & Barton, 1951, 162). Instead, these unanticipated (incomplete or vague) responses can help the reporter understand the respondent's frame of reference (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Krippendorff, 1980; Lazarsfeld & Barton, 1951; Majchrzak, 1984; Weber, 1985). By examining the frame of reference of the respondents, the qualitative researcher can further classify responses, perhaps introducing a classification or perhaps modifying existing classifications. "By separating out the incomplete answers, one may observe the distribution of the remaining complete answers" (Lazarsfeld & Barton, 1951, p. 165). The refinement process through qualitative research supports the needed specificity of quantitative research (Atkins, 1990; Babbie, 1990; Krippendorff, 1980; Weber, 1985). "We have seen that broad concepts must

be broken down into segments to be systematically observed" (Lazarsfeld & Barton, 1951, p. 180). The breakdown results in indices.

"These indices must fulfill two requirements" (Lazarsfeld & Barton, 1951, p. 180). In fulfilling the two requirements, the merit and worth of the indicator clearly present themselves. First, indices should be "rather easily ascertained: it should be easier to detect their presence or absences, in the case of dichotomous attributes, or to rank them in the case of serials than the original concept as a whole" (Lazarsfeld & Barton, 1951, p. 180). If the qualitative researcher successfully categorized and classified the variables associated with the phenomenon of interest, the indices should clearly present themselves. Second, indices "should correspond reasonably well to the larger universe of characteristics which we have in mind when we use the original concept" (Lazarsfeld & Barton, 1951, p. 180). If the qualitative researcher successfully categorized and classified the variables associated with the phenomenon of interest, the indices should present themselves as reasonable, even logical, and therefore would hold up to the scrutiny of future research, especially quantitative research. By relying on quantitative research to develop a classification system and the subsequent indices associated with the classification, the work of behavioralists to add rigor to the methodology of the policy sciences lent support to the alternative framework of case study to the rational-comprehensive framework. Yet, it also tied the two together in a manner that seemed to cover all possible contingencies of research into the policy sciences.

In this section was a discussion on the consideration of qualitative research in providing the starting point for quantitative public policymaking research in an effort to lend rigor to the methodology of policy science. Qualitative research, with a design on classification as a primary undercurrent to the presentation of qualitative research, provides an invaluable tool for the quantitative research by producing specific rankings, scales, multidimensional approaches, and indices. It does so by first intuitively developing a classification system and then seeking to discover the classification system in four points: (1) articulation, (2) logical correctness, (3) adaptable to situation, and (4) adaptable to interlocutor. If the qualitative researcher successfully categorized and classified the variables associated with the phenomenon of interest, the indices should clearly present themselves. If the qualitative researcher successfully categorized and classified the variables associated with the phenomenon of interest, the indices should present themselves as reasonable, even logical, and therefore would hold up to the scrutiny of future research, especially quantitative research. However, the efforts to enhance the methodology of policy science were not complete. The next effort discussed addresses the value of interviews to the effort for rigor in policy science research methodology.

The fourth supporting argument for enhancing the methodology of policy science took into account the value added through interviews and how to ensure rigor. Because the ethical limits to policy science precluded experimentation as a method to test ideas and suppositions about phenomenon of interest (Capron, 1975; Rivlin & Timpane, 1975; Schelling, 1975; Schultze, 1975), when

researchers discovered 'natural' occurrences of the phenomenon of interest they investigated the occurrence(s). The early investigations took the form of interviews. This section begins with a discussion on two types of subjectivity with which the interview procedure must contend, respondent subjectivity and reporter subjectivity. The section continues with explanations regarding recommended solutions to the two types of subjectivity.

"The interview partakes of two elements of subjectivity: the reports of the respondent or subject, and the reports made about the respondent by the interviewer or observer" (Hyman, 1951, p. 203). Because the interview process offers to the researcher a rich and diverse collection opportunity and because of the reliance of the social sciences on techniques of interviewing for data gathering, it is paramount to address the shortcomings and possible solutions to the two elements of subjectivity (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Leiserson, 1965; Nagel, 1989; Weber, 1985). The study of the public policymaking process is the study of a rich and diverse process and lends itself well to the qualitative research methods, as was explained in the previous section. In response to Lasswell's call for rigor to the methodologies in the policy sciences, solutions to the two elements of subjectivity in the interview process were sought and reported in the literature. Beginning with respondent subjectivity, the literature reports four solutions that include: (1) flexibility, (2) clarity, (3) shared meaning, and (4) preparation. Flexibility requires the reporter or observer properly assess the context in which the interview will take place (Gall, Borg, & Gall, 1996; Hyman, 1951

Krippendorff, 1980; Weber, 1985) and keeping an open mind to the many possibilities and opportunities that occur during the interview (Babbie, 1990; Vaughan & Buss, 1998). Flexibility includes considering the setting of the interview, is it a hostile, neutral, or friendly environment? Is the interview occurring before, during, or after the phenomena of interest? Is the respondent the most qualified to reply to the questions? If not, does this detract from the value of the interview? What anticipated linkages to other respondents or classifications exist? In addition to considering the aforementioned questions, the clarity is likewise affected.

Clarity of interview questions and intent of the interview help reduce subjectivity related to the respondent. By testing the interview questions in formal environments, the interviewer helps ensure precision of the instrument and enhances clarity for the interview (Babbie, 1990; Gall, Borg, & Gall, 1996; Hyman, 1951; Leiserson, 1965). "The real problem is to determine the kind of situation which will liberate the attitudes being studied" (Hyman, 1951, p. 206). If the reporter is clear on their desired outcome, and the fullness of their instrument to include an understanding of the reliability and validity of their efforts, a sense of clarity necessarily follows (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Leiserson, 1965; Nagel, 1989; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994). Of course, the clarity also aids in creating a sense of shared meaning, the third solution to the element of subjectivity related to the respondent.

Shared meaning does not just happen, the observer must understand the meanings the respondents associated to the terms used in the interview as well as their own understanding of the meanings (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Leiserson, 1965; Nagel, 1989; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994). This requires a thorough review of the instrument, as mentioned earlier for the other solutions, with a mind towards possible conflicts in meaning. One way to bolster the sense of shared meaning is to use terminology more akin to the respondent's point of view than to the observer's point of view, even when that creates difficulties for the observer (Babbie, 1990; Hyman, 1951; Krippendorff, 1980; Weber, 1985; Yin, 1994). A review of the interview instrument, studying the interview questions, practicing the interview, probing the interview questions in a pre-interview test, and content-analysis are all part of the process to ensure a sense of shared meaning (Babbie, 1990; Hyman, 1951; Krippendorff, 1980; Weber, 1985; Yin, 1994). Therefore, the sense of shared meaning relies heavily on preparation of the instrument and of the observer.

Preparation, the fourth solution to the element of subjectivity related to the respondent, is not an afterthought, as this presentation of the literature may present. It is an intertwined aspect of the entire process of developing the interview instrument. "All this suggests that there is an important function which the interview performs in the collection of data" (Hyman, 1951, p. 207). It also portends to the need for solutions to observer subjectivity, as the observer is often the person conducting the procedures to eliminate respondent subjectivity through

flexibility, clarity of the instrument, a sense of shared meaning and preparation. In the portion of this section on the two elements of interview subjectivity is a discussion on the solutions to reporter or observer subjectivity.

Solutions to reporter or observer subjectivity include involvement of the reporter in the process of creating the interview and responding to bias. Reducing bias, as the literature reports, comes about through self-administered interviews, multiple interviews, multiple interviewers, scripts, and preparation to include coding (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Leiserson, 1965; Nagel, 1989; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994). These solutions are best addressed in the similar fashion as discussed in the portion of this section on respondent subjectivity. In other words, by maintaining a flexible, open mind to the interview and the process to produce the interview instrument, seeking clarity and a sense of shared meaning, and preparing for the interview, the reporter reduces a great deal of the subjectivity they bring to the procedure. The interviews "ultimate quality is dependent upon the interviewer who elicits and finally records the information given by the respondent" (Hyman, 1951, p. 207) and therefore, their dedication and attention to the issues of flexibility, clarity, preparation and bias are tantamount to a successful interview. What does the literature report as effective ways to deal with reporter bias?

Reducing bias, as the literature reports, comes about through self-administered interviews, multiple interviews, multiple interviewers, scripts, and preparation to include coding (Atkins, 1990; Babbie, 1990; Derrida, 1978; Gall,

Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Leiserson, 1965; Nagel, 1989; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994). In this section each of the six ways to reduce bias are addressed, starting with the self-administered interview. Self-administered interviews, or questionnaires (surveys) are "perhaps the most radical solution to the problem of interviewer bias: to do away with the interviewer completely" (Hyman, 1951, p. 208) and are a topic on their own in the next section of this literature review, the fifth supporting argument for enhancing the methodology of policy science. However, it is important at this point to mention that the drive to reduce bias involves two levels, "one being that of actual errors introduced by the interviewer in asking questions or recording answers, and the other being the interactive effect upon the respondent" (Hyman, 1951, p. 208). True, the self-administered questionnaire, by definition, excludes the former error: but the belief that the physical absence of an interviewer excludes an interactive effect upon the respondent is mistaken" (Hyman, 1951, p. 208) and is the focus of future discussion.

Other researchers have suggested solutions to the problem of interviewer bias somewhat less radical than that of the self-administered questionnaire, but posing the same problem. All these solutions involve the use of an interviewer and permit the operation of whatever bias is inevitable in the interview situation as such (Hyman, 1951, 209).

These solutions include attempts to mitigate bias through repeated measures, strict interview techniques such as scripts, and rehearsed preparations for coding.

(Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994). Repeated

measures include conducting multiple interviews and/or conducting an interview session with multiple interviewers or observers. The value added by the repeated measures is a cancellation effect on the probable bias. Using more than one interview, the literature reports, is likely to reduce gross bias by introducing multiple simple biases. Using multiple interviewers or observers presents the opportunity during the post-interview stage for the interviewers/observers to compare reports and eliminate possibly biased interpretations of their observations, or at the least report the observed biases (Babbie, 1990; Derrida, 1978; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994).

Scripts also help reduce interviewer bias. Scripts that are well structured and tested provide the interviewer with objectivity, but reduce the flexibility. One solution to overcome the flexibility is to use open-ended questions in the script (Babbie, 1990; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994). The script adds a structure to the interview that reduces bias, but the open-ended question keeps the interview open to exploration at the discretion of the observer. Observer discretion relates significantly to their experience level, their familiarity with the phenomena of interest, and their preparation for the interview. The preparation also includes a familiarity with the coding.

Coding the interview requires a great deal of preparation and training, as well as a shared sense of meaning amongst the interview team (Babbie, 1990; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Vaughan & Buss,

1998; Weber, 1985; Yin, 1994). "Coding is essentially an instance of content analysis" (Babbie, 1990, p. 45). The literature reports that the task of coding requires reducing a bulk of information into manageable categories and classifications. The categories, as discussed earlier in this section on supporting arguments for enhancing the methodology of policy, must articulate clearly, have logical correctness, relate to the environment, and adapt to the respondent. There are two basic approaches to coding. "First, you might begin with a relatively well-developed coding scheme derived from your research purpose" (Babbie, 1990, p. 210). The interviewer must show dedication and attention to the issues of flexibility, clarity, and preparation to develop a successful coding scheme. "The second approach to coding is appropriate whenever you are not sure initially how your data should be coded because you do not know what variables the data represent among your subjects of study" (Babbie, 1990, p. 211). Regardless, the codes ought to be exhaustive and mutually exclusive to reduce the introduction of observer bias (Babbie, 1990; Gall, Borg, & Gall, 1996; Hyman, 1951; Krippendorff, 1980; Vaughan & Buss, 1998; Weber, 1985; Yin, 1994).

"The extent of interviewer bias under given circumstances, and more important, the sources of it, must be determined, and the problems of the interviewing methods must be considered in all its complexity" (Hyman, 1951, p. 215). Solutions to the subjectivity, regardless if respondent subjectivity or reporter subjectivity, rely on addressing the issue of clarity, flexibility, experience, definition of terms and sense of shared meaning. Most importantly,

solutions to subjectivity require preparation of the instrument and the interviewer!

Preparation also largely affects the self-administered interview.

In this section on the argument for enhancing the methodology of policy science through interviews was a discussion on 'natural' occurrences of the phenomenon of interest and the two types of subjectivity with which the interview procedure must contend, respondent subjectivity and reporter subjectivity.

Because of the harm associated with policy experiments, interviews of those involved in the 'natural' occurrence of the phenomenon of interest is the ethical solution to data gathering. The interview procedure must contend with subjectivity. The literature reports four solutions to respondent subjectivity: (1) flexibility; (2) clarity; (3) shared meaning; and (4) preparation. The literature also reports solutions to reporter or observer subjectivity as including efforts to reduce bias through scripts, practice, preparation for the interview, and coding. The next section addressed surveys as the eminent data collection devise in the effort to lend rigor to the methodology of policy science.

The final supporting argument for enhancing the methodology of policy science deliberated on the survey as the new eminent data collection devise for public policy studies and how to ensure the survey supported the research with thoroughness. As stated in the section on interview, because the ethical limits to policy science precluded experimentation as a method to test ideas and suppositions about phenomenon of interest (Capron, 1975; Rivlin & Timpane, 1975; Schelling, 1975; Schultze, 1975), when researchers discovered 'natural' occurrences of the phenomenon of interest they investigated the occurrence(s).

The early investigations took the form of interviews and a specific form of the interview was the survey (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). In this section is a discussion of the development of the survey and the use of the survey as the primary data collection tool because of ethical limitation on experimentation with public policy by researchers (Babbie, 1990; Capron, 1975; Dillman, 2000; Hyman, 1951; Likert, 1951; Rivlin & Timpane, 1975; Schelling, 1975; Schultze, 1975). Survey research is scientific and exceptionally useful in addressing a multitude of issues in a single instrument. "Survey is one of the few procedures which can be used to cope with the problems in present-day society on an integrated rather than on a segmental basis" (Likert, 1951, p. 233). However, it is important to examine the scientific characteristics of surveys to understand their eminence in data collection for the policy sciences. The five scientific characteristics of survey research include: (1) logic, (2) determinism, (3) general applicability, (4) parsimony, and (5) specificity (Babbie, 1990).

Survey research employs the implementation of logical understanding. The questions, their phenomenon of interest, and the rigorous testing of the instrument follow reasoned, logical steps (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Surveys allow the researcher to "assume a deterministic posture" (Babbie, 1990, p. 41). In other words, the survey provides a mechanism for the researcher to observe the phenomenon of interest from a variety of viewpoints with a single instrument to describe and determine possible causes or determinants. By collecting data through the survey, a number of data analysis options exist that are not as readily available, or as inexpensive, as other methods

of data collection in the social sciences, especially because of the relatively non-invasive method and the bulk of data that surveys can collect (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Researchers use surveys, and conduct analysis of the data collected through the survey, to understand the entire population and its sub-populations. While the analysis of the data usually separates the information into categories or reports on the sub-populations, the aim is towards a generalized understanding of phenomenon of interest (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Researchers want thrift in their data collection. They want to gain the greatest amount of understanding using as few variables as necessary. The survey format allows for a frugal collection devise (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). "Since the survey format lends itself to the collection of many variables that can be quantified and processed" (Babbie, 1990, p. 42), it is parsimonious. Finally, survey research is specific. "Because survey analysts have described precisely how their measurements have been developed and made, the reader knows precisely what those measurements represent" (Babbie, 1990, p. 43). To support the argument for enhancing the methodology of policy science, survey development aimed "at ever more sophisticated and more useful conceptualizations and measurements" (Babbie, 1990, p. 44). One specific useful and sophisticated form is the sample interview.

"The sample interview survey is the combination into a single procedure of many recent developments in sampling, interviewing, research design, attitude measurement, content analysis, and motivational theory" (Likert, 1951, p. 233).

The sample survey uses logic in its construct and application to determine general applicability of the phenomenon of interest, in a thrifty, frugal, parsimonious and specific scientific method (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). In producing a sample survey, Likert (1951) points out five important steps to remember: (1) wording, (2) securing all data, (3) question ordering, (4) including all relevant variables, and (5) using a familiar vocabulary.

Likert mentions, "each question must be so clearly worded that it is readily and correctly understood by all the respondents" (Likert, 1951, p. 241). One way to accomplish this is with a panel of experts (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). A panel of experts can trace the origins of the word meaning through both the research and operational contexts. The panel of experts can also help in paraphrasing the entire question to meet the need of the researcher as well as communicate clearly to the respondent (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951).

Securing all the data required is the second important step Likert mentions. Adding or subtracting questions as part of the pretest experience helps the researcher "obtain clear and complete information from each respondent on each variable that is to be analyzed" (Likert, 1951, p. 241). Along with a panel of experts, a pilot test of the survey and subsequent data analysis can help ensure the questions secure all the data required for the final analysis (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Along with securing all the data, question order can influence the data (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951).

Likert (1951) advises checking the order of questions to reduce the effect of order on the results. Aside from problems of clarity, format and internal relationships, especially those related to the order of questions, present difficulties the survey researcher must address (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). While the order is important, it is equally important that the survey gather all the relevant information on the variables necessary for analysis.

Likert (1951) points out that overlooking important variables negatively influences the outcome of the research that depends on the survey for data collection. Aside from overlooking important variables, overlooking the examination of the specific variables by failing to address the variable in the survey create problems in the analysis (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). The “pretest will reveal through the thinking or experience of respondents that there is an important dimension that has not been previously recognized” (Likert, 1951, p. 241) or that was ignored in the instrument, the survey (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). The included questions ought to flow in a familiar language to the respondents.

“In addition to the having the questions worded in a vocabulary familiar to the respondents and flowing from one to another in an easy manner, it is essential that the respondents feel that the questions asked call for information they can supply” (Likert, 1951, p. 242). The literature reports that such wording and flow of the survey come from a strong grasp of the phenomenon of interest by the researcher. It requires an expertise on the part of the researcher of both the research literature and the operational use of the information surveyed (Babbie,

1990; Dillman, 2000; Hyman, 1951; Likert, 1951). The sample interview survey is often, "the best way of securing the accurate measurements that are required. There is great promise in the future application of the survey [in policy science research] in the years that lie ahead" (Likert, 1951, p. 251).

In this section on the use of surveys for enhancing the methodology of policy science were two areas of interest: the scientific characteristics of the survey and; the procedures for creating a sample survey. The five scientific characteristics of survey research include: (1) logic, (2) determinism, (3) general applicability, (4) parsimony, and (5) specificity (Babbie, 1990). In producing a sample survey, Likert (1951) points out five important steps to remember which are: (1) wording, (2) securing all data, (3) question ordering, (4) including all relevant variables, and (5) using a familiar vocabulary. This section is the final of the five supporting arguments.

These five supporting arguments for enhancing the methodology of policy science strengthen its ability as a field or discipline to rigorously self-examine the accuracy of its frameworks, theories, and models included: (1) Probability and Causation, (2) Use of Mathematical Models, (3) Qualitative Analysis, (4) Improving Interviewing techniques, and (5) Use of the Survey in collecting data. The literature reports that these early arguments answered Lasswell's call for rigorous methodology in the public sciences and set the course for future developments of methodology and problems/issues of interest for policy analysis. The literature also describes how these two frameworks serve as the preliminary, normative frameworks against which and from which subsequent frameworks,

theories, and models develop over the next five decades, into the 1990s. The next area of the literature review communicates to the reader the schools of thought on the policymaking process as studied in this dissertation, System and Stage heuristics, and the role of the model in the policymaking procedure and the heuristics of Kingdon, Lindblom, and Lovell.

Schools of Thought

The third main area of the literature review communicates to the reader the schools of thought on the policymaking process as studied in this dissertation. Specifically, it informs the reader on the seminal work of Easton and Anderson on systems and stage heuristics of the policymaking process respectively. Next is an account of the work by Dye on describing policymaking analysis, and specifically the role of the model in the policymaking procedure. The discussion concludes with the heuristics of Kingdon, Lindblom, and Lovell.

Systems Heuristic – Easton

One of the early and persistent new frameworks for studying public policymaking was Easton's system approach (Easton, 1965b). In his framework for political analysis, Easton sought to "elaborate a conceptual structure [framework] and suggest, where possible, some theoretical propositions...I explore in detail what may be called the life process of a political system, those kinds of functions through which it performs life as a system surrounded by a variety of environments" (Easton, 1965b, p. vii). Easton sought to address the

“central problem of empirical political [study]” (p. vii) through a considered and thorough framework he labeled a systems approach.

This section of the literature review on Easton’s system approach starts with a description of Easton’s primary argument that public policymaking is a product of a system. The section continues with an explanation of the systems approach; a public policymaking system is a political life cycle, a complex organization for problem solving. Next is a discussion on how Easton’s system approach responds to the central tenants established for a framework. Finally, this section closes with a discussion on the use of Easton’s system approach in this study. Easton’s system approach argues that public policymaking is the product of a system and that a system is a compilation of both inter-societal and extra-societal components (abstract and concrete) and actors within an environment. The compilation of components and actors within the environment, along with the interjected demands, form inputs to the problem-solving process—the process Easton called “the political system”—in turn generates outputs. The effectiveness of the outputs, as measured by feedback, form new inputs that are acted upon by the components, actors, and environment, and act upon the components, actors, and environment. These outputs from the political system are public policy and that the public policy itself, the outputs, acted upon the very system that went into their creation. “We may begin by viewing political life as a system of behavior embedded in an environment to the influences of which the political system itself is exposed and in turn reacts” (Easton, 1965b, p. 18).

A system that produced outputs and reacted to the very outputs in their production was a complex approach. To reduce the complexity, Easton envisioned the systems approach to the study of public policymaking as a framework and model for examining the entire system as an integrated whole, and as a framework and model for examining the parts of the whole system, the unique variables. The framework allows the analyst to examine the whole system, and the model allows the analyst to examine the parts of the system, the unique variables. "Easton hoped systems thinking would carefully and closely analyze elements of a system; the system, in its way, therefore directed research to important and analytically compact parts of a broader system" (Birkland, 2001, p. 223).

To accomplish this analysis, Easton placed on himself the requirement to describe components of the environment in which public policymaking took place. Easton did so with a systems approach that "may be described as descriptive, empirically-oriented, behavioral, operational or causal" (Easton, 1965b, p. 5). With his systems approach, he worked to include such varying patterns of "thought and analysis as those involved in creative moral inquiry, linguistic analysis, the interpretation of the nature and determinants of political belief systems or ideologies and the discovery and formation of empirically oriented theories" (Easton, 1965b, 5-6). His objective in producing the framework for policy analysis was "to extricate from the total political reality those aspects [components] that can be considered the fundamental processor activities without which no political life in society could continue" (Easton,

1965b, p. 13). Easton presented the public policymaking process as a political life cycle, a complex organism with many procedures for solving problems or responding to demands with policy.

“It is useful to interpret political life as a complex set of processes through which certain kinds of inputs are converted into the types of outputs we may call authoritative policies, decisions, and implementing actions” (Easton, 1965b, p. 17). To study the complexity of the political life cycle required an understanding of the components of the system. “At the outset it is useful to take a somewhat simpler approach” (Easton, 1965b, p. 17) to the study of the political life cycle. With a more simple approach to the study of the political life cycle, Easton presented an Input-Process-Output-Feedback (IPOF) model. Easton delineates his systems approach further by explicating vital considerations for the system. “Several vital considerations are implicit in this interpretation and it is essential that we become aware of them” (Easton, 1965b, 17-18)

- (1) Such a framework assumes that political interactions in a society constitute a system
- (2) The system must be seen as surrounded by physical, biological, social, and psychological environments
- (3) What makes the identification of the environments useful and necessary is the further presupposition that political life forms an open system

- (4) Systems must have the capacity to respond to disturbances and thereby to adapt to the conditions under which they find themselves (Easton, 1965b, 18)

Easton presented the systems approach as a fully integrated, bounded, open, organic process of policymaking. By organic, the systems approach had a life of its own, influenced by and influencing its environment—the environment also interacted with other environments, a discussion which is later in this section. The influencing occurred during the application of values, whether normative or positive, to the problems that sought solution. In other words, the policymaking process, as an organic system, sought to adhere to the values present in the system when ascribing solutions to problems. The systems approach, to work as a framework for the study of public policymaking, had to consider the policymaking system as separated for examination (without influence from or upon the environment) and it had to integrate the influence from or upon the environment. “To be of maximum utility, I have argued, a political system can be designated as those interactions through which **values** are authoritatively allocated for a society: this is what distinguishes a political system from other systems that may be interpreted as lying in its environment” (Easton, 1965b, p. 21). The organic nature of the policymaking process lay in the treatment of values. Public policy served as the ultimate outcome of the system. These values and their influence grew out of problems and solutions from within and outside the environment in the production of public policy. Along with the values of the

environment, the environment itself significantly influenced the production of public policy.

Easton described the environment in which the political system lay as divided in two parts: the intra-societal and the extra-societal. "The first consists of those systems in the same society as the political system but excluded from the later by our definition of the nature of political interactions. Intra-societal systems would include such sets of behavior, attitudes, and ideas as we might call the economy, culture, social structure, or personalities; they are functional segments of the society with respect to which the political system at the focus of attention is itself a component" (Easton, 1965b, p. 21). The intra-societal part of the public policymaking system consists of those abstract components such as values, issues, theories, models, problems, and politics. The intra-societal part of the public policymaking system also consists of those concrete components such as stakeholders, policymakers, structures of government, and funds. "The second part of the environment, the extra-societal, includes all those systems that lie outside the given society itself. They are functional components of an international society or what we might describe as part of the supra-society, a supra-system of which any single society is part" (Easton, 1965b, 21-22). The extra-societal part of the public policymaking system consisted of similar abstract and concrete components except they have a wider scope in the extra-societal. With an understanding of the abstract and concrete components in hand, what remains is to understand how these interact. They interact through "stressful conditions" (Easton, 1965b).

“How do the potentially stressful conditions from the environment communicate themselves to a political system? After all, common sense alone tells us that there is an enormous variety of environmental influences at work on a system’ (Easton, 1965b, 25). In the same way a pebble in a pond causes waves throughout the pond, so do abstract and concrete disturbances spread through the public policymaking system. Easton asked, “do we have to treat each change in the environment as a separate and unique disturbance, the specific effects of which for the political system have to be independently worked out” (Easton, 1965b, p. 25). Observations reveal to us that the effect of the disturbances lessens as they proceed from the epicenter. Their intensity, duration, and even the awareness of their disturbance subside without a countervailing disturbance, or repeat disturbance. Before his systems framework, Easton (1965b) described that the process of analyzing each and every disturbance was virtually insurmountable. However, with a framework, and especially his systems model, “we can devise a way for generalizing our method for handling the impact of environment on the system, [with] some hope of reducing the enormous variety of influences into a relatively few, and therefore into a relatively manageable number of indicators” (Easton, 1965b, p. 25). This is the role of the model, to reduce to a manageable level the variability of the concrete and abstract disturbances and allow the researcher and analyst to examine the phenomenon of interest. Easton’s system approach provided a method for examining the complex public policymaking life cycle in the fullness of its complexity and in the narrows of its unique components. It provides a model and a framework. How does Easton’s system approach

respond to the central tenants for a framework? The next portion of this section on Easton's system approach addresses the five tenants of a framework which are: (1) actors; (2) variables; (3) units of analysis; (4) levels of analysis; and (5) scope.

Perhaps the most complex aspects of the systems approach were the actors. "Because of the analytical distinction that I have been making between a political system and its parametric or environmental systems, it is useful to interpret the influences associated with the behavior of persons in the environment or from other conditions there as *exchanges* or *transactions* that cross the *boundaries* of the political system" (Easton, 1965b, 25-26). The components, whether abstract or concrete, do not operate without influence on each other and neither do the actors in the environment for which the systems model takes into account. The variance in their influence on the system significantly alters how the analyst examines the system. Whether combining or using individually the abstract or the concrete components when examining the environment, "unless systems were coupled together in some way, all analytically identifiable aspects of behavior in society would stand independent of each other, a patently unlikely condition" (Easton, 1965b, 25-26). Easton argues that assumptions about the effects of actors, such as those of the Rational-Comprehensive or Behavioralist vantage, must combine with the abstract and the concrete components. In other words, analysts must consider the actors involved in the system as coupled with either an abstract or concrete component, and they ought to explicitly state this coupling when conducting analysis. Then the influence of the actor within and upon the system clearly reveals itself. The

systems approach, therefore, recognizes the complexity of the involvement of actors, and at the same time establishes a method to analyze the involvement, whether in abstract or concrete terms. In this way, Easton's system approach provides for both a holistic and narrow examination of public policymaking, the environment, actors and abstract and concrete components by ascribing systems ideas to the policy life cycle. "In effect it [the flow model of the political system] conveys the idea that the political system looks like a vast and perpetual conversion process. It takes in demands and support as they are shaped in the environment and produces something out of them called outputs" (Easton, 1965b, p. 29). Outputs are the key variable in Easton's framework. How does Easton treat variables?

The systems approach depicts the public policymaking life cycle as continuous, fully integrated, bounded, open, and organic (reliant on feedback) when addressing the variety of activities in that same life cycle. "It is the fact that there can be such a continuous flow of effects and information between system and environment, we shall see, that ultimately accounts for the capacity of a political system to persist in a world even of violently fluctuating changes" (Easton, 1965b, p. 32). Since variables are "a set of mutually exclusive characteristics" (Babbie, 1990, p. 74), Easton's treatment of the policy life cycle as a continuous flow with violently fluctuating changes, it is imperative Easton describe the variables. For Easton, the core variables are the inputs, the processes, the outputs, and the feedback. These variables are general categories of the system "that structure, constrain, guide, and influence actions taken by

actors” (Schlager, 1999, p. 235). Easton describes his systems flow with the Input-Process-Output-Feedback (IPOF) model, further clarifying the delineation of the core variables. What about the unit of analysis and the level of analysis; does Easton address these tenants of the framework?

Easton’s system approach argues that public policymaking is the product of a system and that a system is a compilation of inter-societal and extra-societal abstract and concrete components and actors within an environment. Since these combine to form the environment, the broad unit of analysis is the environment. However, the unit of analysis in Easton’s framework can also be narrowed to either the inter- or extra-societal components, the abstract or concrete components, the actors, or other specific parts of the environment. For example, a unit of analysis may be the actor, specifically the policymaker, and how the system for producing good higher education public policy appears to that actor, the policymaker. The actor could also be a stakeholder, another agency (state or federal) within the system for policymaking, or the state. Regardless, Easton’s framework does provide for a unit of analysis. It also provides for the level of analysis.

The units of analysis can be studied from one of three levels; the focus of the study on either the “daily activities,” “collective-choice,” or “constitutional-choice” of the policymaking process. “Although the analyst can choose to keep the analysis focused on a single level, the other two levels are always implicitly included” (Schlager, 1999, p. 238). In a systems approach, the life cycle of the policymaking process serves as the overarching system and therefore all three

levels are present. The analyst could select one level, two levels, a combination of levels, or even all three levels. For example, were an analyst to study access to higher education in the state they could examine the application procedure as a "daily activity," the "collective-choice" could include studies at institutions to change admissions procedures and the "constitutional-choice" could include state-wide movements to alter admissions procedures. These levels also affect the scope.

"The levels of action that a framework comfortably addresses strongly affect the scope of the framework" (Schlager, 1999, p. 239). Using the above examples for levels of analysis, the individual institution in a state is the scope of the first study, the institutions within a state the scope for the second study, and the entire state system is the scope for the third study. However, the scope could be all institutions within a state with a level of analysis pointed at each institutions admission procedure. Easton's systems approach works exceptionally well as a framework. It provides flexibility, structure, guidance, for the analyst.

"Frameworks organize inquiry, but they cannot in and of themselves provide explanations for, or predictions of, behavior and outcomes. Explanation and prediction lie in the realm of theories and models" (Schlager, 1999, p. 234).

Easton's framework provides that additional explanation and prediction through the simple IPOF model.

The compilation of actors, components as variables, units of analysis, levels of analysis and scope within the environment along with the IPOF model make Easton's work especially important for the analyst. From examining inputs

to the problem-solving process that in turn generate outputs, to the study of the process, the outputs and the feedback, and analyst gains greater understanding of the life cycle of public policymaking, and the policy. How will this study use Easton's framework and model in this study?

Easton's unique treatment of the effectiveness of the outputs, as measured by feedback, form new inputs that are acted upon by the components, actors, and environment, and act upon the components, actors, and environment. These outputs are public policy. Easton's framework provides the analyst with a seeming contradiction: the study of the output (public policy) is really a study of the public policymaking process and the study of the public policymaking process is really a study of the output. By assessing the effectiveness of the three models in accurately portraying the public policymaking process, Easton's framework guides the study towards the output as the dependent variable. The dependent variable is an opinion score from a six-point response scale asking the respondents to report their opinion of the extent to which aspects of models accurately reflect the manner in which policymakers produce *good* higher education public policy.

Easton's system approach argues that public policymaking is the product of a system and that a system is a compilation of both inter-societal and extra-societal components (abstract and concrete) and actors within an environment. The compilation of components and actors within the environment, along with the interjected demands, form inputs to the problem-solving process—the process Easton called “the political system”—in turn generates outputs. The effectiveness

of the outputs, as measured by feedback, form new inputs that are acted upon by the components, actors, and environment, and act upon the components, actors, and environment. These outputs are public policy. This section of the literature review on Easton's system approach starts with a description of Easton's primary argument that public policymaking is a product of a system. In this section was an explanation of the systems approach; a public policymaking system is a political life cycle, a complex organization for problem solving. Next was a discussion on how Easton's system approach responds to the central tenants established for a framework, those tenants of: (1) actor; (2) variables; (3) units of analysis; (4) levels of analysis; and (5) scope. The discussion pointed out how Easton's system approach clearly responds to the tenants and how Easton's approach establishes "general classes of variables and relationships among those variables, from which theories [and models] may develop" (Schlager, 1999). Finally, this section closed with a discussion on the use of Easton's system approach in this study as applied to the output, *good* higher education public policy.

Stages Heuristic – Anderson

Anderson's five major categories of policymaking are the most recognizable in the study of higher education public policy (Goodchild, Lovell, Hines, & Gill, 1997). The categories serve as the framework, whether explicitly or implicitly, in most grounded research into the stages of policymaking, especially higher education public policy (Anderson, 1975). This framework views "the policy process as a device (a heuristic, as it were) to help disaggregate

an otherwise seamless web of public policy transactions” into a process of stages (deLeon, 1999, 24). From this stage approach, Anderson presents five major categories of policymaking. Anderson’s five major categories of policy making is an overview of the process as a scientific approach to the study of the policymaking process. Specifically, the stages are a reasoned approach to a convoluted process, they are an attempt to make meaning of and organize that which so often is referred to as unclear, unorganized, disorderly, illogical, incoherent, and ill-structured (Anderson, 1975; Birkland, 2001; Bowen, 1997; Burns, Pelatson, Cronin & Magleby, 1998; Crosson, 1984; Dror, 1971; Easton, 1965b; Fowler, 2000; Hartmark & Hines, 1986; Heller, 2001; Kingdon, 1995; Lindblom, 1959, 1968, 1979, 1982; Lovell, 2000; Lowi, 1964, 1970, 1972, 1992; Nagel, 1979, 1980; Newman, 1985; Richardson, Bracco, Callan & Finney, 1999; Sabatier, 1999; Theodoulou & Cahn, 1995).

This section on Anderson’s five categories starts with a description of what Anderson saw as the advantage to the stage approach, an explanation of each stage (category), how they developed, and how Anderson saw analysts might use the stage to question the policymaking process. Next is a discussion on how Anderson’s framework responds to the central tenants established for a framework. Finally, this section will close with a discussion on the use of Anderson’s work in this study. Anderson first presented his five stages of policymaking in his book *Public Policymaking* (1975). With only one minor alteration over time (renaming the first stage from “problem formation” (Anderson, 1975, p. 26) to “policy identification and agenda formation”),

Anderson's stages provide grounding for the scientific and the "relevant" (Anderson, 1975, p. 9) approach to the study of the public policymaking process. They do so by viewing the process as "a sequential pattern of action involving a number of functional categories of activity that can be analytically distinguished, although in various instances this distinction may be difficult to make empirically" (Anderson, 1975, p. 26). "These stages are not simply divined from the heady atmosphere of the academy. Both individually and in combination, they offer a way to think about public policy in concept and, just as important, in operation (DeLeon, 1999, 21). These five categories include: (1) policy identification and agenda formation; (2) policy formulation; (3) policy implementation; (4) policy adoption; and (5) policy evaluation (Anderson, 1975).

Anderson conceptualized policy-making as a series of events occurring in distinct stages and labels these stages categories. Anderson saw this framework as having a number of advantages. First, he saw the chronology as reflective of the actual process of policymaking. "The sequential approach thus helps capture the flow of action in the policy process" (Anderson, 1975, p. 27). Second, the sequence approach has great flexibility, "it is open to change" (Anderson, 1975, p. 27). Third, the categories reflect a dynamic rather than static system. "Moreover, it emphasizes the relationships among political phenomena rather than simply listing factors of developing classification schemes" (Anderson, 1975, p. 27). Anderson does not ignore the dynamics of the human interaction in the policymaking process instead; the categories allow the analyst to narrow their focus of study to a certain step in the process, a step that Anderson distinguishes

with the five categories. Finally, Anderson's framework "is not 'culture-bound,' and it can be readily utilized to study policy-making in foreign policy-making systems (Anderson, 1975, 27).

Anderson establishes a framework for the analyst to use in the study of the policymaking process. The framework divides the process into five categories that occur sequentially. The first category addresses policy identification and formation. Therefore, in looking at the sequence of the policymaking process, the first question a policy analyst asks is, "how problems come to the attention of policymakers; how policy proposals are formulated to deal with particular problems, and how a specific proposal is chosen from adoption among the competing alternative" (Anderson, 1975, p. 55). The realm of study into the agenda formation—the policy identification and formation category—is now an entire study unto itself with such researchers as Kingdon (1995) and Sabatier (1999) taking great pains to explain the complex process that brings problems to the attention of the policymakers and how the policymakers select problems and their possible solutions. This first category of the policymaking process, the policy agenda (Anderson, 1975, 59-66), deals with the demands made by or upon the policymakers. Since only a small portion of the demands find their way to the policymaker (Anderson, 1975; Kingdon, 1995; Sabatier, 1999), the analyst must consider who the demands make it to the policymaker, why they make it to the policymaker, and what the policymaker does with the demand to make it an agenda item. The next step in the sequence of the policymaking process according to Anderson is policy formulation.

Policy formulation “involves the development of pertinent and acceptable proposed courses of action for dealing with public problems” (Anderson, 1975, 66-67). Formulation is a systemized process of standardizing according to a prescribed manner. Policy formulation is the process of standardizing, or rating, the proposed policy as a viable, practical, “relevant,” solution to the identified problem. Policy formulation may be action, or it may be inaction, as the policymakers see fit (Anderson, 1975). Policy formulation relies heavily on the “how the alternatives for dealing with the problem developed” (Anderson, 1975, p. 26), and “who participates in the development of policy proposals” (Anderson, 1975, p. 67). Policy formulation involves two activities. First, the decision-making process for selecting and forwarding proposed solutions to problems. This process includes discovering and presenting the general principles used to develop the solution. The second activity is “the drafting of legislation (or the writing of administrative rules), which, when adopted, will carry these principles into effect” (Anderson, 1975, p. 70). Together, the decision-making and the drafting of legislation, form the second of Anderson’s five categories of the policymaking process. The third category is policy adoption.

Anderson includes this category in the same chapter as the first category of policy identification and agenda formation and policy formulation. This is due in great measure to the difficulty in isolating either when a demand is a ‘problem identification’ or when it is a ‘proposed alternative’ and where in the decision-making process the problem and the proposed solution arrive for consideration. However, there inclusion in a single chapter does not diminish their importance as

separate categories. Anderson describes policy adoption in a separate chapter of his later revisions on the five categories. The binding influence on all three is the decision-making process. Anderson explains how the decision to select a proposed course of action occurs in the formulation, but policy adoptions “involves action by some official person or body to approve, modify, or reject a preferred policy alternative” (Anderson, 1975, p. 76). While the decision-making process may result in a preferred course of action, the final authority in the policymaking process, usually the legislature (Anderson 1975, 1990), still has to decide on the appropriateness of the preferred course of action, and how that preferred course of action addresses the problem. Anderson asks the analyst to answer these questions when examining the policy adoption category, “How is a policy adopted or enacted? What requirements must be met? Who adopts policy” (Anderson, 1975, 26)? This third category is in effect the end of the decision-making process. Anderson does describe the decision-making heuristics as useful in understanding the first three categories, but he is careful not to select one heuristic over any other. He leaves it to the analyst to choose the heuristic however, he clearly points out the need to address the style employed if the analyst is to do a thorough investigation. “Once the legislative adoption stage of the policy process has been completed, we can begin to refer to something called public policy” (Anderson, 1975, p. 98).

Policy, in modern political systems, implementation occurs primarily through complex systems and a number of different agencies (Anderson, 1975, 1990). What makes this category an important sequential stage in the

policymaking process is the discretion afforded agencies in implementing policy. Anderson asks the analyst to consider the following questions when examining the implementation of policy, "What is done, if anything, to carry a policy into effect? What impact does this have on policy content?" The implementation category addresses the *who* and the *how* of putting into practice the resulting decision of the policymakers. This generates a brand new decision-making process, this time for the administrator. Who will "carry the policy into effect" (Anderson, 1975, p. 26)? What authority will the person carrying the policy into effect have? What enforcement measures do they have at their disposal? What sanctions can they impose? Finally, how does the administration of the policy effect the policy, both in practice and in intent? These are the queries of a thorough analysis of the implementation category of the policymaking process. What remains, according to Anderson, is the evaluation of the policy.

"Generally speaking, policy evaluation is concerned with the estimation, assessment, or appraisal of policy, including its content, implementation, and effects" (Anderson, 1975, p. 132). Anderson describes the need for a rigorous examination of the policy, with a factual basis for their positions. "It is of course often impossible to measure quantitatively the impact of public policies, especially social policies, with any real precision. In this context, then, to 'measure rigorously' is to seek to assess as carefully and objectively as possible the impact of policy" (Anderson, 1990, p. 228). Policy evaluation is concerned with the real-world, tangible bearing (impact) of policy on the problem and those affected by the problem and the policy solution. "At a minimum, policy

evaluation requires that we know what we want to accomplish with a given policy (policy objectives), how we are trying to do it (policy programs), and what, if anything, we have accomplished toward attainment of the objectives (impacts or outcomes, and the relation of policy thereto)" (Anderson, 1975, p. 134). Of course, if the intended outcome does not come to fruition, the analyst ought to indicate why (Anderson, 1975, 1990). Where a single reason may not exist, the analyst ought to present the most reasonable. In this manner, the response by the policymaking process will have greater influence and greater likelihood of successfully addressing the problem. Finally, Anderson asks the policy analyst to consider new demands for change; does a new problem exist or is the problem solved? Some contend, as Plutarch wrote, that the policymaking process starts over:

They are wrong who think that politics is like an ocean voyage or a military campaign, something to be done with some end in view, or something that levels off as soon as that end is reached. It is not a public chore, to be got over with; it is a way of life [it is organic!] (Stone, 1997)

Therefore, Anderson's sequential process becomes a cycle to those with that contention. Anderson would not necessarily argue in the abstract with that contention. What he does say is that the new cycle is still a sequence of events, "it is continuous" (Anderson, 1975, p. 161) and that it can be studied sequentially anew. What central tenants of a framework does Anderson's five categories approach address?

Anderson does not directly respond to the central tenants of a framework in his works. He does present the "general scheme for the analysis of public

policy-making” as one composed of actors, methodology, and public interest.

This portion of the section on Anderson addresses the five tenants of a framework: (1) actors; (2) variables; (3) units of analysis; (4) levels of analysis; and (5) scope.

Schlager does an excellent job of reviewing frameworks (Sabatier, 1999) and describes the actor as the person “who motivates action or change” (Schlager, 1999, p. 234). Anderson directs the analyst to explicitly mention the actor and himself describes the actor as a policymaker, interest group, administrator, specialist, etc. However, Anderson warns his readers that implicit actors do exist and they may remain hidden, whether out of their own desire or due to the complexity of the policymaking process. Anderson carefully examines the breadth of possible actors and describes each of the five categories with regard to the actor(s) involved in the process. Anderson also described how the many actors add to the complexity of the system. A complex system would certainly contain variables.

Variables are “a set of mutually exclusive characteristics” (Babbie, 1990, p. 74). The values, viewpoints, preferences, etc. of the actors form a significant variable for the analyst to consider. The five categories themselves form a set of variables in that they are “general classes of variables that structure, constrain, guide, and influence actions taken by actors” (Schlager, 1999, p. 235). Anderson does address the variables in his heuristic. What about the unit of analysis and the level of analysis; does Anderson address these tenants of the framework?

The units of analysis are "the setting that the analyst wants to examine and the questions that the analyst wants to address" (Schlager, 1999, p. 237). The units of analysis are the units "under study...at the same time, units of analysis can be described in terms of the groups to which they belong" (Babbie, 1990, 53-54). Anderson's categories are not only variables, but they are also units of analysis for the analyst. As Kingdon (1995) and Sabatier (1999) developed their seminal works on the study of the public policymaking agenda setting process, it becomes clear that Anderson's categories do form five distinct units of analysis. The units of analysis can be studied from one of three levels; the focus of the study on either the "daily activities," "collective-choice," or "constitutional-choice" of the policymaking process. "Although the analyst can choose to keep the analysis focused on a single level, the other two levels are always implicitly included" (Schlager, 1999, p. 238). Anderson does not restrict the analyst to one particular level. Instead, Anderson offers specific studies that address all three of the levels of analysis. In this manner, Anderson properly deals with the tenants of unit of analysis and level of analysis. How does Anderson address scope as a tenant of frameworks?

Scope, or the range of the levels of action the framework addresses (Schlager, 1999), for Anderson is analyst specific. In other words, Anderson, in describing the four primary advantages to the categories as a sequential examination of the policymaking process, also defined the scope. First, he saw the chronology as reflective of the actual process of policymaking. Therefore, the scope of Anderson's categories included the scope of real world public

policymaking. Second, the sequence approach has great flexibility, "it is open to change" (Anderson, 1975, p. 27). The scope of Anderson's five categories could be as narrow or as broad as the analysts thought necessary. Third, the categories reflect a dynamic rather than static system. A dynamic scope translates into a realist, usable scope, and one that seeks accurate portrayal of the public policymaking process. A dynamic scope "emphasizes the relationships among political phenomena rather than simply listing factors of developing classification schemes" (Anderson, 1975, p. 27). Finally, the scope of Anderson's framework "is not 'culture-bound,' and it can be readily utilized to study policy-making in foreign policy-making systems" (Anderson, 1975, p. 27). The scope of Anderson's framework is therefore accurate, flexible enough to address the myriad of possibilities that occur in the public policymaking process, dynamic for the analyst to examine either the narrow, broad or both aspects of the process, and suitable for the development of many theories. Anderson's five categories of the public policymaking process generate a framework that "provides the most general list of variables that should be used to analyze all types of institutional arrangements. Frameworks provide a metatheoretical language that can be used to compare theories" (Ostrom, 1999, 39-40). Anderson presents a *first level of analysis from which theories can develop*; he presents a framework. How does this study use Anderson's framework?

In this study, the table of Specifications lists the salient aspects of each of the three models. Anderson's framework provides an additional structure for this study to use in addressing the main research question. Specifically, Anderson's

framework provides a mechanism for this study to examine which model or elements of the models do the respondents report as accurately reflect the policymaking process. Implicitly, the use of Anderson's five categories finds its way into almost all policy analysis (Schlager, 1999), this study will state explicitly where the framework assists in the examination of the data. While not explicitly part of the tables of data and data analysis, in the analysis and interpretations certainly parts of Anderson's categories will find favor. For example, do the models tend to agree on the idea of policy identification and agenda formation? Which survey items reflect one category? Which items reflect more than one category? Which items do not reflect a category? How does the sequential approach of Anderson's framework manifest in each of the three models examined?

This section on Anderson's five categories of the public policymaking process described the categories. It examined the categories as stand-alone parts of a sequence, and as integral parts of an entire framework. Next, this section described the tenants of a framework and how Anderson's work of five categories is a framework for analysts of the public policymaking process. Finally, this section described the use of Anderson's five-category framework in this study.

The Role of the Model in Public Policymaking – Dye

Next is an account of the work by Dye on the role of the model in public policymaking analysis. Dye explains how the model helps describe, simplify, clarify, identify, communicate, direct inquiry, and provide possible explanations for policy as an outcome of the policymaking procedure (Dye, 1972). This

section of the literature review on Dye's explanation of the model starts with a description of Dye's argument regarding the use of public policy and specifically policy analysis over policy advocacy to address public problems and continues by explaining six limitations on policy analysis. The section then goes on with an explanation of the model as a tool of policy analysis. Finally, this section describes the utility of models towards developing public policy solutions. The discussion begins with a description of public policy as a method to solving public problems through either policy analysis or policy advocacy.

When a public problem presents itself to government, they may choose to do something about it or choose not to do something (Dye, 1972). "We generally assume that if a government chooses to do something there must be a goal, objective, or purpose, but all we can really observe is what governments choose to do or not to do" (Dye, 1972, p. 2). Dye states that to study government requires first an understanding that "the major focus of attention of political science has never really been on policies themselves, but rather on institutions and structures of government and on the political behaviors and processes associated with policy making" (Dye, 1972, p. 2). However, the traditional units of analysis no longer remain primarily with institutions, structures, behaviors, and processes. "Today the focus of political science is shifting to public policy," (Dye, 1972, p. 3) and the effectiveness of the public policy. The primary tool employed to discover the effectiveness of public policy is policy analysis. Through analysis comes an understanding of public policy (Dye, 1972).

“Policy analysis encourages scholars and students to attack critical policy issues with the tools of systematic inquiry” (Dye, 1972, p. 6). Policy analysis provides a better perception of the actions taken in public policymaking. Dye explains that both policy analysis and policy advocacy exist in the public policymaking procedure. Dye differentiates policy analysis from policy advocacy. “Policy advocacy requires the skills of rhetoric, persuasion, organization, and activism” (Dye, 1972, p. 6). Policy analysis is a reasoned determination of problems and their solutions; policy analysis is the science of public policymaking while policy advocacy is the art of public policymaking. Dye claims that analysis and advocacy together make for a more effective society, a better society (Dye, 1972). Moving towards a better society requires both the art and science of policy advocacy and policy analysis, with policy science describing the barriers and possible solutions. Unfortunately, the science of policy analysis is not a panacea; “it is questionable that policy analysis can ever provide ‘solutions’ to America’s problems” (Dye, 1972, p. 11).

“Of course, [the seemingly perpetual existence of problems] is no excuse for failing to work toward a society free of these maladies. But our striving for a better society should be tempered with the realization that ‘solutions’ to these problems may be very difficult to find” (Dye, 1972, p. 11). Therefore, the role of policy analysis, as described by Dye, is to “explain and predict...through a rigorous search for causes and consequences of public policies...in an effort to develop and test general propositions about the causes and consequences of public policy and to accumulate reliable research findings of general relevance” (Dye,

1972, p. 6). With that said, Dye explains six limitations of public policy of which the analyst ought to be wary.

These six limitations of public policy include: (1) it is easy to exaggerate the importance of policies as solutions—solutions outside government may exist; (2) without an agreement on what problem exists, no amount of policy analysis will help; (3) policy analysis relies on subjective topics and employs interpretations; (4) the science of policy analysis is not “value free” research; (5) policy analysis cannot rely on experimentation and controlled environments, it must rely on “natural” disturbances; and (6) social problems are too complex to make accurate predictions (Dye, 1972, 11-14). With these limitations expressed, Dye continues by admonishing analysts of the need to conduct rigorous investigation, relying on systematic methods of description and explanation. “Even if social scientists cannot predict the impact of future policies, they can at least attempt to measure the impact of current and past policies and make this knowledge available to decision makers” (Dye, 1972, p. 14).

An understanding of policies through analysis lends itself well to addressing problems with appropriate, reasonable, and effective policies. “Policy analysis is not likely to provide ‘solutions’ to America’s problems. But we do not need to rely exclusively on ‘rules of thumb’ or ‘muddling through’ or ‘rap sessions’ or ‘sounding off’ or emotional outpourings of one kind or another in approaching policy questions” (Dye, 1972, p. 14). Dye advocates a scientific over an emotional approach to problem solving and considers the use of theories and their models as especially helpful “in thinking about public policy” (Dye, 1972, p.

17). "We can try systematically to describe and explain the causes and consequences of public policy in order to advance scientific understanding, to better prescribe for the ills of society, and to improve the quality of public policy" (Dye, 1972, p. 14).

The system best suited to studying public policy is science, especially policy analysis. The frameworks, theories, and models of policy science guide the analyst to an understanding of the policy life cycle and of the stages of public policymaking. "Over the years political science, like other scientific disciplines, has developed a number of concepts and models to help us understand political life. The six purposes of these models are to order and simplify, to identify, to be congruent with reality, to communicate, to direct inquiry, and to suggest explanations. Keep in mind that "a [public policy] model is merely an abstraction or representation of political life" (Dye, 1972, p. 35). Following are Dye's general criteria for evaluating the usefulness of models

Certainly, the utility of a model lies in its ability to *order and simplify* political life so that we can think about it more clearly and understand the relationships we find in the real world. Yet, too much simplification can lead to inaccuracies on our thinking about reality. Therefore, a balance between simplification and a total encapsulation requires the modeler understand the salient aspects of that which they intend to model. A public policy model should *identify* the really significant aspects of public policy. It should direct attention away from irrelevant variables or circumstances, and focus upon the 'real' causes and 'significant' consequences of public policy. Generally, a model should be

congruent with reality. A positivist model would reflect the actual process, while a normative model would reflect the desired process. The models under study in this dissertation are positivist models. A public policy model should also *communicate* something meaningful about the public policymaking. The communication relies on a sense of shared meaning. If too many people disagree over meaning the model loses utility and little effective communication ensues; the model is diminished without due consideration of the need to communicate important, salient aspects of public policymaking. A model should help to *direct inquiry and research* into public policy. A “[model] should be operational” (Dye, 1972, p. 36). That is, a model “should refer directly to real world phenomena which can be observed, measured, and verified” (Dye, 1972, p. 36). Finally, a model approach should *suggest an explanation* of public policy. “It should suggest hypotheses about the causes and consequences of public policy—hypotheses which can be tested against real world data” (Dye, 1972, p. 36). It should provide to the analyst a tool for that realistically explains public policymaking and assists in exploring public policymaking. By providing the explanation, models of policy science guide the analyst to an understanding of the policy life cycle and of the stages of public policymaking and provide utility to the study of public policymaking.

Models are useful when they accurately reflect the real world system upon which they are based. The accuracy of a model relies on its ability to order, simplify, identify, communicate, direct inquiry, suggest explanations—in general, the accuracy relies on the congruence with reality. This study assessed three

models, those of Kingdon, Lindblom, and Lovell, on public policymaking. What follows in the next section of the literature review is an explanation of these three models, keeping in mind the discretions of model put forward by Dye. The first model is Lindblom's as it lays the foundation for the opposing framework to the Rational-Comprehensive framework, namely the Incremental or Bounded Rationality framework.

Lindblom – Incrementalism or Bounded Rationality

A second early and persistent heuristic for studying public policymaking was Lindblom's counter to the rational-comprehensive behaviorist framework termed "Bounded Rationality" known as Incrementalism (Lindblom, 1959).

Lindblom (1959) advocated a different approach to the rational-comprehensive framework upon which so much of public policy study relied. He presented Bounded Rationality, or Incrementalism, as an alternative framework, theory, and model. Lindblom offers incrementalism as a decision making model in which policy change occurs through small, incremental steps (Lindblom, 1959). In this section are a description of Lindblom's contentions with the Rational-Comprehensive framework and the development of the Incremental framework on public policymaking. Specific to the discussion are the two core tenants that (1) policymakers and decision makers disagree on values and policy objectives, and (2) the difficulty of gathering and processing sufficient information to make the "limited comparisons" (Lindblom, 1959). The treatment of the model derived from Lindblom's framework is then described as an adherent to the systems approach of policy analysis.

Lindblom describes policy-making as synonymous with decision-making (Lindblom, 1959). He describes policy-making as occurring through a process of incremental decisions and not through a rational system. He considers incrementalism as a bounded rationality. Lindblom originally developed his model in response to the prevailing Rational-Comprehensive/Behavioralist framework of the time. This framework saw problems as having rational systems for producing answers (Lindblom, 1959). Lindblom presented his work using "Root" and "Branch" categories to help explain the ideas of rational-comprehension and the bounded rationality of incrementalism. In the "Root" method, the decision-making process starts from a *root* problem or issue, while in the "Branch" method, decisions build on what is already known, they *branch* off from the known, from the status quo (Lindblom, 1959, 1968, 1979). Lindblom contends that decision makers do not review the "whole range of existing and proposed policies, identify societal goals, research the benefits and costs of alternative policies in achieving these goals, rank-order preferences for each policy alternative in terms of the ratio of benefits to costs, and then make a decision on the basis of all relevant information" (Dye, 1972, p. 30). Instead, Lindblom contends a more conservative framework for public policymaking ensues that recognizes the constraints (of time, intelligence, money, etc.), accepts the legitimacy of the status quo, recognizes the "sunk costs" (Dye, 1972, p. 31) of policies, the need to reduce conflict in decision making, the reality of human behavior as opposed to radical change but accepting of small change, and the pluralism of western democracies (Dye, 1972; Lindblom, 1959, 1968, 1979). By

introducing Incrementalism as a positive framework, Lindblom sought to answer the question, "is this *good* public policy?"

In looking at the "Root" and "Branch" methods for evaluating *good* public policy, Lindblom offers two ways to conduct "the test for *good* policy" (Lindblom, 1959, p. 83). The "Root" (rational comprehensive) method offers policy researchers the chance to agree on objectives, and then measure the outcome of legislation as meeting or not meeting the outcomes (Lindblom, 1959, 81) to decide on whether or not the policy was *good*. The core problem with the root method lies with agreement on values or an agreed-upon objective of the policy. Lindblom contends that the disagreement on values and on objectives makes the public policymaking process, which he describes as a decision-making process, an irrational process. The root method, the Rational-Comprehensive framework, sees the disagreement and subsequent resolution as a rational process, the first step in the decision-making or policymaking process. Lindblom described the fundamentals of the root method as reliant upon clear and agreed-upon values and objectives which therefore meant policymaking would be a simple means-ends analysis. "First the ends are isolated, then the means to achieve them are sought" (Lindblom, 1959, p. 81). The test of good public policy would be a simple formulaic of best-fit. The branch method differed significantly.

The "Branch" (bounded rationality) method relies on incremental changes to the status quo based on what is already known, on what is already agreed-upon, and what can reasonably be understood in a timely manner (Lindblom, 1959,

1979). The Branch method has policy researchers take the policy in total and asks if the stakeholders think it is *good* (Lindblom, 1959, 81). Where the Rational-Comprehensive framework, the root method, describes the resolution on clarity of values and objectives as a possible and necessary precursor, the branch method sees their clarification and the process of clarification as “not distinct from one another but are closely intertwined” (Lindblom, 1959, p. 81). Lindblom further contends that a pluralistic society becomes highly dependent on the status quo because of the energy and effort previously expended developing the policy—the “sunk cost” of the status quo (Dye, 1972). Therefore, the distinctions of clarity and agreed-upon values and objectives seem less likely when a vested interest in past policy exists, as is the case in a pluralistic society. If the distinction is not present, then a means-ends analysis, a type of analysis that requires clarity, cannot occur. “The test of a ‘good’ policy is typically that various analysts find themselves directly agreeing on a policy (without their agreeing that it is the most appropriate means to an agreed objective)” (Lindblom, 1959, p. 81).

In the “Branch” method, policy researchers would call a policy good without being able to specify what *good* is (Lindblom, 1959, 83), while in the “Root” method, policy researchers have metrics and an objective result of *good* based on achieving desired results. It seems that from this “Root” and “Branch” method policy researchers could have an agreement on the answer to the question, “is this policy *good*?” without actually being able to agree on how it is *good*. This leads to the second aspect of this discussion on Lindblom, the difficulty of gathering and processing sufficient information to produce good public policy.

In the "Root" method, which is a Rational-Comprehensive framework, Lindblom describes the assumption on information gathering as a complete effort; "ideally, rational-comprehensive analysis leaves out nothing important" (Lindblom, 1959, p. 84). However, basing his framework on the human, fallible condition, Lindblom contends this basic tenant of the Rational-Comprehensive framework is flawed. "Limits on human intellectual capacities and on available information set definite limits to man's capacity to be comprehensive. In actual fact, therefore, no one can practice the rational-comprehensive method for really complex problems" (Lindblom, 1959, p. 84). Later, in response to the criticism of his Incrementalism, Lindblom still held to the contention that "all analysis is incomplete, and all incomplete analysis may fail to grasp what turns out to be critical to good policy" (Lindblom, 1979, p. 519). He admits that even the limited analysis that a human mind can grasp, or the bulk of information that technology can provide, may accidentally be incomplete even in an incremental approach to policymaking. The relevance of the information, the relation to the values or objectives, and the limits of the public policymaking process all work to generate a system that must rely on incremental changes to the secondary issues that dominate western democracies (Lindblom, 1979, 525), while the pluralism of such democracies ensconces the status quo again making incremental shifts the primary mode of public policymaking.

In other words, Lindblom did not dismiss the Rational-Comprehensive framework in its entirety because the decision-making that occurred in public policymaking demanded some explanation. A completely irrational framework

would preclude analysis of the public policymaking process. An effective framework would need to consider "relevance and realism" (Lindblom, 1959, p. 84). The relevance of certain theories to the real process could, at times, stand in the way of understanding the public policymaking process. Lindblom argued that the theories in vogue at the time could lead to incomplete analysis of public policy as good. Analysis would be dramatically limited because of serendipity, the advancing methods of information gathering, and conversely by human shortcomings. A policy could stumble on a solution, a lack of information may not significantly deter policymakers nor preclude their understanding the basic problem, or those affected by or analyzing the policy may not be able to do so correctly and thereby label a policy as good when in fact it was not good. Therefore, the difficulty of gathering and processing sufficient information, related to the policymakers and decision makers disagreement on values and policy objectives comes to fruition as a positive framework not in the rational-comprehensive framework, but in the Incremental framework.

As a model, Lindblom's Incrementalism depicts the process of public policymaking as continuous, bounded, open, and organic. The model adheres to the systems approach of policy analysis. The model is continuous in the very nature of incremental changes. Incrementalism, as a model of the public policymaking process, is "political change by small steps" (Lindblom, 1979, p. 517). The outcome of a past policy reflects as the input to a new problem that requires a policy to solve the problem. That solution then becomes an output, and

will eventually be an input on another problem. It is a continuous, incremental movement towards a final solution. The model is also bounded.

As the name implies, Bounded-Rationality as a model is a bounded system for describing the public policymaking process. It is bounded by the set of possible solutions, or by the set of comprehensible solutions a policymaker or decision-maker can reasonably understand. The Incremental model does not portend to assume all possible solutions can be known in time for decision to be made. The Incremental model does not ascribe to the concept that a policymaker or decision-maker can understand all the possible solutions before making the policy or decision. The boundary is not defined specifically. It is only presented as a logical, reasonable assumption of fallibility ascribed to both humans and systems. Being bounded does not preclude the Incremental model from being open.

An open system is one in which the separate influences upon the system also receive consideration (Easton, 1965b). The Incremental model examines the status quo as one of the many separate influences upon the system. Aside from the intra-and extra-societal factors Easton describes—both concrete and abstract—the Incremental model pays considerable attention to the status quo. From the current policies will branch the new policies, through small, incremental changes to the current policy. In addition to the continuous, bounded, and open nature of the Incremental model is the organic nature of the model.

An organic model relies heavily on feedback (Easton, 1965b). The feedback, in the Incremental model, comes primarily from the output, the public

policy. The output, public policy, becomes the status quo and also influences and effects future public policy. Because of the incremental adjustments the model describes, these increments have as their source previous policy. Previous policy has as their source other previous policy, and so on. The output is constantly feeding the input; the organic nature—a reliance on feedback—is quite clear in the Incremental model. The Incremental model is a systems approach to the public policymaking process in that it describes the policymaking life cycle as continuous, bounded, open, and organic.

In this section was an overview of Lindblom's contentions with the Rational-Comprehensive framework and an explanation of the Incremental, or Bounded-Rationality, framework. Lindblom's Incrementalism addresses the shortcomings he noted in the Rational-Comprehensive framework. Specifically, the Rational-Comprehensive framework did not accurately portray the bulk of policymaking procedures because of disagreement over values and objectives of policy (ies) and the difficulty in gathering and processing sufficient information to make a decision and produce good public policy. Lindblom asserts that Incrementalism, as a positive framework, describes the bulk of policymaking procedures. In addition, the treatment of the model derived from Lindblom's framework was described as an adherent to the systems approach of policy analysis in that it is continuous, bounded, open, and organic. In the next section is a discussion of Kingdon's Multiple Streams as a description of the agenda setting and alternative specifications in *good* public policy formation.

Kingdon – Multiple Streams

Kingdon addresses the inertia required for good public policy by examining the agendas and alternatives of public policymaking. Stemming from the work of Cohen, March, and Olsen (1972) and their idea of an Organized Anarchy (affectionately termed the 'Garbage Can'), Kingdon developed his model of the Multiple Streams or revised Garbage Can. In describing his "research project designed to follow the rise and fall of items on the agenda," (Kingdon, 1995, p. xi) he states, "we have been occupied with understanding why participants deal with certain issues and neglect others" (Kingdon, 1995, p. 196). Kingdon looked at two major pre-decision processes: agenda setting and alternative selection. In this section of the literature review is a description of Kingdon's finding on public policy agenda setting and alternative specifications. Next is a discussion of Kingdon's theory and subsequent model as a systems model. Finally, this section addresses Kingdon's work as fitting in both the Rational-Comprehensive framework and the Incremental framework. First, it is important to understand how Kingdon defines agenda setting and alternative selection. "A governmental agenda is a list of subjects to which officials are paying some serious attention at any given time. Thus an agenda-setting process narrows the set of subjects that could conceivably occupy their attention to the list on which they actually do focus" (Kingdon, 1995, p. 196). Kingdon defines alternative specification as narrowing "the large set of possible alternatives to that set from which choices actually are made" (Kingdon, 1995, p. 196). What are the

key components of Kingdon's treatment of agenda setting and alternative specifications and what are his findings?

Kingdon relies on the earlier work of Cohen, March, and Olsen and their development of the Garbage Can model to establish his idea of Multiple Streams. The Garbage Can model describes the decision-making process in organized anarchies with three elements or streams: problems, solutions, and participants. An organized anarchy is an organization "which does not meet the conditions for more classical models of decision making" (Cohen, March, & Olsen, 1972, p. 16). The garbage can process of decision-making in an organized anarchy is one in which "problems, solutions, and participants move from one choice opportunity to another in such a way that the nature of the choice, the time it takes, and the problem it solves all depend on a relatively complicated intermeshing of elements" (Cohen, March, & Olsen, 1972, p. 16). Multiple Streams, as a theory, addresses the decision-making process in the organized anarchy of public policymaking. Kingdon simplifies the public policymaking process to include (1) the setting of the agenda, (2) the specification of alternatives, (3) an authoritative choice among those specified alternatives, and (4) implementation of the decision (Kingdon, 1995, 2-3). Kingdon chose to specifically look at the "labyrinth of policy formation" (Kingdon, 1995, p. 18). This labyrinth included the agenda setting and alternatives selection of public policy. Kingdon's Multiple Streams idea, like the Garbage Can model, describes three separate streams (problems, politics, and policy) as flowing separately and when coupled in a policy window forming policy agendas and alternatives for selection. The first two streams listed

(problems and politics) go to agenda setting and the latter stream (policy) goes to alternative selections. It is in the coupling activity, a relatively non-random dynamic series of non-fortuitous events, that the resulting agenda and alternatives are presented to public policymakers (Kingdon, 1995). Therefore, it is important to understand the three streams and the policy window as Kingdon describes them in order to understand the model of Multiple Streams Kingdon presents. The first stream examined is the problem stream.

“Fairly often, problems come to the attention of governmental decision makers not through some sort of political pressure or perceptual slight of hand but because some more or less systematic indicator simply shows that there is a problem out there” (Kingdon, 1995, p. 90). Kingdon describes the process through which problems gain attention as either focusing events or feedback. These focusing events can be either a “crisis or disaster that comes along to call attention to the problem, a powerful symbol that catches on, or the personal experience of a policy maker” (Kingdon, 1995, 94-95). On their own, these focusing events do not simply become a problem worthy of a policymaker’s attention or an agenda item. The focusing event requires “accompaniment” (Kingdon, 1995, p. 98). Accompaniment either establishes attachment to a pre-existing problem or draws attention to similar problems or events. The aggregation of focusing event with its accompaniment propels a problem down the problem stream towards inclusion on the agenda. Feedback, the other process through which problems gain the attention of public policymakers, is a normal course of events in governmental activities, and the activities of any

organization. "Governmental officials receive feedback...this feedback often brings problems to their attention" (Kingdon, 1995, p. 100). Feedback, in a similar fashion as focusing events, requires an accompaniment to elevate the information in the feedback to the level of problem. Such accompaniments include notice of failure in policy implementation, failure to meet policy goals, or failed cost analysis, or unanticipated consequences of policy. Problems are therefore either focusing events or feedback that are accompanied by some marker that values the condition as a problem. Policymakers then use "indicators to assess the magnitude of and the change in a problem" through the accompaniment (Kingdon, 1995, 113). The policymaker interprets the coupled focusing event or feedback as a problem or not. The problem, once recognized, then moves forward on the stream towards consideration as an agenda item. "Problem recognition is not sufficient by itself to place an item on the agenda" (Kingdon, 1975, p. 114). A problem makes it on the agenda if it is politically expedient to do so. This leads to a discussion of the politics stream.

Flowing along independently of the problem stream is the political stream, composed of such things as public mood, organized political forces, the events of government itself, and consensus building. The public mood is a perception of support for actions. Public policymakers sense of the national mood "serves to promote some items on their policy agendas and to restrain others from rising to prominence" (Kingdon, 1995, p. 147). Policymakers try to gauge the national mood through a variety of means. Since this is a perception, the national mood component of politics is rather vague. Yet, public policymakers "feel they can

accurately sense the mood at any one point in time...they also feel that they can sense changes in the mood" (Kingdon, 1995, p. 147). While public opinion polls do not always support the public policymakers' interpretations, nonetheless policymakers use their "sense" of the mood. Sometimes these sensations stem from the interaction with organized political forces. Organized political forces present their interest(s) to the policymaker. The conglomeration of organized interest groups lends support to the policymakers' sense of the national mood. However, "if there is some conflict among the organized forces, the political leaders implicitly arrive at an image of their environment that strikes some balance" between the forces (Kingdon, 1995, 150). The conflict usually revolves around support or opposition of a current program or inertia for a new program which in turn generates support and opposition. "Once a government program is established, the clientele it benefits organizes into an impressive collection of interest groups whose major purpose is to protect the program from which they draw their sustenance" (Kingdon, 1995, p. 152). The organized political forces can and do lose their potency when the flow of governmental events, such as elections, shift. In a similar way that the national mood tends to lend credence to the political support of a possible solution, so too does a shift in governmental events signal a change in governmental mood and political support of a possible solution. In a turnover of key personnel or a change of jurisdiction, political support of a possible solution can be significantly affected. Kingdon describes the changes in governmental events as more powerful than the national mood or organized political forces. Regardless, he sees the consensus building in the

political stream as the final arbiter of the political support of a possible solution in the political stream. When examining the national mood, the organized political forces, and the changes in governmental events, public policymakers "judge the degree of consensus...if there is widespread agreement among the forces, officials will try to go along with them, or at least know what they are up against" (Kingdon, 1995, p. 163). Independently of the problems and policy stream, "the political stream flows along according to its own dynamics and its own rules" (Kingdon, 1995, p. 162). With the description of the two agenda setting streams (problems and politics), what remains to discuss of the three streams is the policy stream, a component of the alternatives specifications.

Kingdon describes the policy stream as "policy primeval soup" containing policy communities and ideas in which "a large number of possible policy initiatives is narrowed down to a short list of proposals that are seriously considered" (Kingdon, 1995, p. 143). The policy stream is best seen as a selection process of proposals, specifying the alternative that survives the complex interaction of communities and of ideas that are "compatible with the values of specialists" in the communities (Kingdon, 1995, 132). "Policy communities are composed of specialists in a given policy area...specialists are scattered both through and outside of government" (Kingdon, 1995, p. 117). What makes them a community is their knowledge of each other and the ideas prevalent in their area of expertise. Kingdon describes the many ways in which these communities interact internally and externally, but key to their interaction is the consideration of ideas. Some ideas have advocates, other ideas do not have

advocates. As policymakers and members of the policy communities “encounter ideas and proposals, they evaluate them, argue with one another, marshal evidence and argument in support or opposition, persuade one another, solve intellectual puzzles, and become entrapped in intellectual dilemmas” (Kingdon, 1995, p. 125). This intellectual treatment of the proposals differs from the political consensus building in that the idea (not the pressure to accept a proposal but the idea) stands on its own merit. It is a rationalization of the argument (Kingdon, 1995, 126). What persuades, as was mentioned earlier, is the compatibility with a shared value. The consideration of proposals through intellectual and value assessment by the policy communities, the specialists, and the policymakers narrow the possible solutions to a short list of those most feasible and those “capable of being implemented” (Kingdon, 1995, p. 143). This short list “is not necessarily a consensus...rather, it is an agreement that a few proposals are prominent” (Kingdon, 1995, p. 144). With the agenda selection and alternative specifications completed, how does a proposal become an agenda item? It becomes an agenda item in the policy window.

“The policy window is an opportunity for advocates of proposals to push their pet solutions, or to push attention to the special problems” (Kingdon, 1995, p. 165). The policy window is an opportunity for action. However, the window does not remain open all the time. When the three streams couple, and the window is open for consideration of the solution or proposal, the item makes it on the agenda. Otherwise, if the policy window is closed, the item does not make it on the agenda. How does a policy window open or close and how do the three

streams couple? A policy window is a euphemism for the concept that "an idea's time has come" (Kingdon, 1995, p. 169). "Basically, a window opens because of a change in the political stream; or it opens because a new problem captures the attention of "public policymakers (Kingdon, 1995, 168). The streams, dependent upon an open window, also influence the opening of a window. A window will close when the opposite actions occur, e.g. no change in the political stream or no new problem captures the attention of public policymakers. If the three streams do not couple at the right time, the window is said to be closed. How do the streams couple?

Coupling occurs when the problems, politics, and policies come together. It is not a random act, as may be inferred by the idea of 'coming together' neither is it a simple problem-solving process of problem, consideration, solution. Instead, solutions float around, "searching for problems to which to become attached or political events that increase their likelihood of adoption" (Kingdon, 1995, p. 172). These proposals float around until "coupled" with a problem that would benefit from the proposal or until a policymaker "finds their sponsorship expedient" (Kingdon, 1995, p. 172). The push for a proposal is accomplished by the policy entrepreneur. Entrepreneurs "advocate their pet alternatives and are responsible for the coupling" of problems, policies, and politics (Kingdon, 1995, 194). Entrepreneurs must make decisions about the window, is it open or closed, and must present the coupled problem, policy, and politics; they must present the compelling alternative for placement on the agenda. How does the coupling of

problems, policies, and politics in a policy window present itself as a systems model?

The systems approach depicts the public policymaking process as continuous, bounded, open, and organic when addressing the variety of activities in that same life cycle. What follows is a description of Kingdon's Multiple Streams model as descriptive of the activities of continuity, bounds, openness, and organic—reliant upon feedback. First, the Multiple Streams model is continuous by its very nature. Problems, proposals, and political events are constantly shifting, coupling, and presenting themselves in policy windows. Sometimes the windows are open and the policy formation continues. At other times the policy window is closed and the policy formation breaks down into its components of problems, policy, and politics only to couple once again when another window opens. This coupling and presentation to a window is ongoing, it is continuous. If it is continuous and reliant on coupling, how is it bounded?

The model is bounded based on the limits to what can be debated substantively and who can participate in the debate. When addressing agenda building, Gertson (1997) states "only a small fraction of all *potential* issues ever get debated because stable democracies can cope with only so many substantive questions at a time" (Gerston, 1997, p. 72). In addition to the limits of substantive questions, there exists a limit to the number of participants, either in the community or in the ranks of the policymakers. While each proposal in the Multiple Streams has an advocate, the stream is bounded by how many proposals

it can entertain, and how many advocates it can entertain while still conducting the business of policymaking. If the model is bounded, how can it also be open?

While the bounded nature of the model is reliant upon what can be debated substantively and who can participate in the debate, the model is open to influences beyond the relevant issues and advocates. Multitudes of triggering mechanisms exist in Kingdon's Multiple Streams model. Among the triggering mechanisms are those events that open or close windows, the coupling of problems, policy, and politics and the multitude of ways in which they can be coupled. While Kingdon describes his model as reliant upon the three streams, he also recognizes the influence of activities outside the process of agenda setting and alternative specification as influencing these two processes, and their players. Such influences include the ability to interpret—rightly or wrongly—such things as the national mood, the value assessment of the policy community towards a particular proposal, the changes in key personnel, and the introduction of a new problem when a solution is almost on the agenda. In addition, the feedback associated with the Multiple Streams model influences the open nature of the model.

Feedback is not restricted to the problems stream. Policy communities receive feedback from within and from outside their community. Ideas transfer across the community to and from the policymakers, with amendments, oppositions, and support. Unintended consequences occur that alter the practicality of a proposal. The values of the participants require consideration as well as the national mood, the report of the consensus opinion, and the results of

key changes in personnel. All of these factors influence and provide feedback to the agenda setting and alternative specifications. The model is a systems model in that it is organic (reliant on feedback), open, bounded, and continuous. How does the Multiple Streams model fit in both the Rational-Comprehensive framework and the Incremental or Bounded-Rationality framework?

Kingdon's Multiple Streams model is both an example of the Rational-Comprehensive framework and the Incremental framework in four specific ways. First, it is an example of the rational-comprehensive framework because it relies on rational discourse and assumes, relating to decision-making, a rational method of selecting the optimal proposal will occur. Second, it is an example of the Rational-Comprehensive model in that the continuous nature of the model allows for a complete discovery of all possible solutions. The model is an example of the Incremental framework in that the identification and development of problems relies on the status quo, which has a large and powerful advocacy. It is an example of the Incremental framework because its overall analysis is drastically limited to the completeness of work in each of the separate streams.

In this section of the literature review was a description of Kingdon's finding on public policy agenda setting and alternative specifications, specifically the three streams (problems, policy, and politics) and the idea of policy windows. Following that was a discussion of Kingdon's theory and subsequent model as a systems model, identified by its continuity, bounds, openness, and organic nature. Finally, this section addressed Kingdon's work as fitting in both the Rational-Comprehensive framework and the Incremental framework because of the

reliance on rational discourse, the comprehensive review within each stream, the heavy support of the status quo and small changes from the status quo, and the limited analysis based on the unique and separate streams. In the next section is a discussion of Lovell's Three-Tier Taxonomy as a description of the policymaking procedure for *good* public policy.

Lovell's Three-Tier Taxonomy

Lovell (2000) presented a taxonomy for *good* public policy to the Public Policy Pre-conference of the Annual American Association for the Study of Higher Education (ASHE). The taxonomy also makes for a good model because it examines the elements necessary for good higher education public policy. In this section is a brief description of the Three-Tiers, an explanation of how Lovell's taxonomy is a systems approach, and how it fits in the Rational-Comprehensive framework. The Three-Tier Taxonomy, in brief, presents three distinct yet related steps to ensure good higher education public policy. These three steps are:

- (1) A need for the involvement of all stakeholders in the production of higher education public policy
- (2) A need for congruence between the proposed higher education public policy and the values of the institutions or systems affected by the higher education public policy
- (3) A need for legislative ascription at an appropriate level of administration or management for the higher education public policy to enhance its outcome—void of micromanagement

The first step in Lovell's model is to involve all those with a stake in the problem and possible solutions. The involvement of the stakeholders allows for a rational discourse of the problems and the objective sought. By ensuring stakeholders receive an invitation, the community of specialists (Kingdon, 1995) can bring to bear their significant wealth of understanding regarding the addressed problem. The community of experts and specialists, who "often know each other very well personally" have the opportunity to "share ideas, proposals and research" (Kingdon, 1995, p. 117). They understand the status quo (Lindblom, 1959) the frameworks, theories, and models applied to the resolution of similar problems (if not to the very problem at hand), and together have a comprehensive understanding of the variables involved in the problem. This coming together also reduces the likelihood of misconceptions and misperceptions; "what happens in reality and what we expect to see happen do not always match. The realities and perceptions of the stakeholders require examination" (Waggaman, 1984). By inviting those with a vested interest in the resolution of the problem, whether a perceived or actual problem, a complete, clear picture evolves. In addition, higher education public policy problems avoiding the likelihood of "disjointed policy, lack of common orientations, and agenda instability" (Kingdon, 1995, p. 143) in forming solutions. Once the policymakers extend the invitation, the next step is to determine if congruence exists between the higher education institutions and systems the stakeholders represent and the public policy under construction.

The second step of Lovell's Three-Tier Taxonomy describes a need for congruence to exist between the proposed higher education public policy and the values of the institutions or systems affected by the higher education public policy. To label a piece of legislation as good higher education public policy, the values of the stakeholders and the values implied or expressed in the policy must have congruence. In other words, the higher education public policy must not work at cross measures with itself or the institutions and systems to which it legislates. Knowing the values expressed helps the policymaker understand how to produce good higher education public policy (Berdahl, 1971, 1974; Kingdon, 1995; Lindblom, 1959; McGuinness, 1997; Waggaman, 1984). It helps the policymaker because the values often tell a story about the history and context of the problem at hand. The values also help the policymaker narrow the large list of options available to a small list of reasonable, feasible, and manageable solutions (Anderson, 1975; Birnbaum, 1988; Dror, 1971; Dye, 1972; Easton, 1965b; Hines, 1988; Kingdon, 1995; Lindblom, 1959; Weingartner, 1996; Wildavsky, 1973). Finding value congruence demands a thorough examination of the problem and the recommended solutions, and ensures the adoption of *good* higher education public policy that responds directly to the problem. Once the higher education public policy is adopted, the efforts to carry it into effect and to measure its success follow.

The third step in Lovell's Three-Tier Taxonomy acclaims a need for legislative ascription at an appropriate level of administration or management for the higher education public policy to enhance its outcome—void of

micromanagement. The third step admonishes a need for careful implementation. The implementation of the higher education public policy influences the outcome because the policy moves from a production stage to an execution stage where the policymakers' only recourse is to modify the policy. The execution is carried out by a separate group; it is carried out by the administrators. Therefore, clear instructions in the higher education public policy to the administrators and empowerment will help ensure the administrators meet both the intent of the policy as well as the explications of the policy. Lovell warns that a micromanaged higher education public policy will not work as effectively as one with both greater flexibility in employment and autonomy (Anderson, 1975; Birnbaum, 1988; Dror, 1971; Dye, 1972; Easton, 1965b; Hines, 1988; Kingdon, 1995; Lindblom, 1959; Weingartner, 1996; Wildavsky, 1973). The model explains the demands on the policymakers and on the administrators to have trust in the instruments and systems over which the higher education public policy legislates. Implicit in the third tier is a sense of trust as an aspect of the freedom from micromanagement which cultivates empowerment.

Lovell's Three-Tier Taxonomy provides researchers with a model of the policymaking system that is fully integrated, open, and organic; it is a systems approach to the policymaking process for higher education public policy. Lovell's Three-Tier Taxonomy is fully integrated in that it invites the community of players to participate in the problem solving process. By inviting the specialist, a complete examination of the problem, values, and solutions will ensue. Both the abstract and the concrete aspects of the problem and its solution come into

focus (Anderson, 1975; Birnbaum, 1988; Dror, 1971; Dye, 1972; Easton, 1965b; Hines, 1988; Kingdon, 1995; Lindblom, 1959; Weingartner, 1996; Wildavsky, 1973). Easton described this aspect of the system as the intra-societal (Easton, 1965b) and pointed to the need for societal involvement if any measure of success were to occur in a democratic social structure. Along with being fully integrated, Lovell's Three-Tier Taxonomy is open.

Easton (1965b) describes an open system as one in which the separate influences upon the system also receive consideration. "It must be interpreted as lying exposed to influences deriving from the other systems in which it is empirically embedded" (Easton, 1965b, p. 18). By inviting the community of specialist to participate and by exhorting policymakers to search for congruence between the proposed higher education public policy and the values of the institutions or systems affected by the higher education public policy, the taxonomy shows itself to be an open system of problem-solving and decision-making; it is an open policymaking system and process (Anderson, 1975; Birnbaum, 1988; Dror, 1971; Dye, 1972; Easton, 1965b; Hines, 1988; Kingdon, 1995; Lindblom, 1959; Weingartner, 1996; Wildavsky, 1973). The open nature of the approach also describes a system that is organic.

Lovell's Three-Tier Taxonomy is organic by functioning as a whole process that reacts to and causes changes in the environment in which it exists. Primarily expressed as a feedback mechanism, the organic nature of a systems approach to public policymaking urges the policymaker to consider the implementation of the policy as a flexible apparatus and not as a constricting,

confined, legalistic micromanagement of policy and policy implementation (Birnbaum, 1988; Dror, 1971; Dye, 1972; Easton, 1965b; Hines, 1988; Kingdon, 1995; Lindblom, 1959; Millett, 1984; Weingartner, 1996; Wildavsky, 1973). With flexible, reasonable implementation of higher education public policy, evaluation of the effectiveness of the policy will have only the policy to consider. The added variable of administrators or style of administration will not play in evaluation of the policy. Only the policy will require examination and evaluation, not the manner in which it is implemented. This is a rational manner in which to conduct policymaking and administration.

The Rational-Comprehensive framework also helps define Lovell's Three-Tier Taxonomy. It does so in three ways: (1) problems are assumed to have a solution; (2) the solution can be discovered; and (3) a method for evaluation assumes the solution is the best-fit for the problem. Lovell's Three-Tier Taxonomy is an excellent example of a product of the Rational-Comprehensive framework. To enhance the likelihood that a solution to problem will evolve, Lovell's first step is to involve all those with a stake in the problem and possible solution. The involvement of the stakeholders allows for an as complete as possible discourse of the problems and the objective sought. Lovell's second step describes a need for congruence to exist between the proposed higher education public policy and the values of the institutions or systems affected by the higher education policy. This congruence of values makes for a harmonious discovery process in seeking a solution to the problem. Finally, by ascribing an appropriate level of administration for the higher education public policy the evaluation of the

policy is less likely to have interfering factors and the best-fit analysis will rely solely, or very nearly solely, on the public policymaking procedure. In addition, by admonishing the policymakers to avoid micromanagement, Lovell's Three-Tier Taxonomy confers a rational method for evaluation of the policy for future consideration; the policy will fail on its own merits not on the demise of bureaucracy. The feedback from those affected by the policy will add to the comprehension of the problem should the policy be incomplete. Therefore, the process Lovell presents is based on systematic, rational, and comprehensive feedback through the life cycle of the policy.

In this section was a brief description of the Three-Tiers Lovell advances as descriptive of the policymaking procedure for good higher education public policy. Following that description was an explanation of Lovell's model as a systems approach to the policy life cycle. Finally, Lovell's model was shown to emanate from the Rational-Comprehensive framework of policy analysis. This section described how Lovell's Three-Tier Taxonomy, when used as a model, is a Rational-Comprehensive, systems model.

This main area of the literature review communicated to the reader the schools of thought on the policymaking process as studied in this dissertation. Specifically, it informed the reader on the seminal work of Easton and Anderson on systems and stage heuristics of the policymaking process. Next was an account of the work by Dye on describing policymaking analysis, and specifically the role of the model in the policymaking procedure. The discussion concluded with the heuristics of Kingdon, Lindblom, and Lovell as systems models of the

two major frameworks of policy analysis, the Rational-Comprehensive and the Incremental frameworks. The next major area of the literature review describes the three major policy issues addressed in higher education public policy today.

Major Issues of Policy

The fourth main area of the literature review describes the three major policy issues addressed in higher education public policy today: affordability; access; and accountability. This section addresses the three major issues both thematically and chronologically. Access and its cousin affordability start as major issues with the 1965 Higher Education Act, the amended act of 1972, the subsequent reauthorizations in 1980, 1986, and finally in 1992. Accountability starts to venture on the scene in the debates for the 1986 Reauthorizations and is codified in the 1992 Reauthorizations. The discussion on the three major issues concludes with an overview of how states respond to the federal mandates, and how these major issues remain for higher education public policy.

Access and Affordability

The Higher Education Act (HEA) of 1965 was “an omnibus bill authorizing a variety of institutional, student, and programmatic aid programs for higher education” (Hannah, 1996, p. 504), with the intent of “increasing equality of educational opportunity” (Keppel, 1987, p. 49). The issue of access found in the HEA '65 originated in the social and civil movements associated with the Truman Administration and the President's Commission on Higher Education in 1947 that had “issued a stirring challenge to make equal education opportunity for

all persons a major goal of American democracy" (Hannah, 1996, p. 504). The coupled issue of affordability saw its start in the National Defense Act of 1958 that "provided grants and loans to students in education" (Hannah, 1996, p. 504). Federal efforts to codify the ideals of access to affordable higher education as an American necessity resulted in the HEA of 1965 when Truman's civil rights efforts progressed into the Kennedy and then the Johnson Administration (Burd, 1998; Danforth, 1984; Delco, 1988; Eaton, 1997; Ewell, 1997; Gladieux, Hauptman, Knapp, 1997; Godwin, 1984; Griffith, 1986; Hannah, 1996; Hauptman & Merisotis, 1997; Heyman, 1984; Keppel, 1987; Lovell, 1997; Martin, 1992; Park, 1977; Pelczar, 1984; Pelesh, 1997; Rosenzweig, & 1984; Ruppert, 1997; SHEEO, 1984; Simon, 1984; Ver Steeg, 1984; Yost, 1979).

The literature reports that access as a stand-alone issue responds to three problems: (1) individuals that cannot gain entry into higher education; (2) an undereducated citizenry for the success of Democracy; and (3) the social obligations to the needy of a Democracy (Bailey, 1997; Burd, 1998; Danforth, 1984; Eaton, 1997; Gladieux, Hauptman, & Knapp, 1997; Godwin, 1984; Griffith, 1986; Hannah, 1996; Keppel, 1987; Martin, 1992; Park, 1977; Simon, 1984; Yost, 1979). The HEA '65 sought to rectify the social ills of reduced opportunity. It was "an ambitious undertaking designed to increase access to higher education for minority and low income groups" (Griffith, 1986, p. 3). It was an attempt to add equity to educational opportunity, to "further a social cause" (Keppel, 1987, p. 50). That cause was an American, democratic ideal of equality for all in the pursuit of happiness (Burd, 1998; Danforth, 1984; Gladieux, Hauptman, &

Knapp, 1997; Park, 1977; Simon, 1984; Ver Steeg, 1984). The HEA of 65 sought to provide access to minorities, women, and those of low-income because of the advantage higher education afforded individuals (Martin, 1992). The HEA of '65 helped the individuals who previously could not gain access into higher education. In so doing, it provided an education for the citizen, and provided a skilled worker for the marketplace (Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; McGuinness, 1997; Selingo, 2000; U.S. Department of Education, 1998). Because of the normative value a Democracy places on education (Bailey, 1997; Danforth, 1984; Simon, 1984), the need for an education to increase the opportunities for wealth, and the national mood in the post-war and Cold War era (Hannah, 1996; Rosenzweig, 1984), the HEA of 65 was seen as an obligation and a distribution of the wealth of the nation. The HEA of 65, along with ensuring access to a postsecondary education, also provided funding for those who previously could not gain access to higher education; it made higher education affordable. However, access was not free.

Affordability and access were joined issues because of the costs associated with a postsecondary education. The affordability of a degree program at a higher education institution was prohibitive for low income, minority, and women students who, but for their economic condition, were excellent candidates for advanced education (Griffith, 1986; Hannah, 1996; Martin, 1992). According to the literature, affordability: (1) was a cousin issue to access because the issue of affordability supported the efforts to provide access; and (2) addressed the needs

of the individual and the institution of higher education (Burd, 1998; Delco, 1988; Eaton, 1997; Gladieux, Hauptman, Knapp, 1997; Godwin, 1984; Griffith, 1986; Hannah, 1996; Hauptman & Merisotis, 1997; Heyman, 1984; Keppel, 1987; Lovell, 1997; Martin, 1992; Park, 1977; Pelczar, 1984; Pelesh, 1997; Rosenzweig, & 1984; Ruppert, 1997; SHEEO, 1984; Simon, 1984; Ver Steeg, 1984; Yost, 1979). The Civil Rights movement provided a climate of changing attitudes towards supporting the minority, low-income, and women students (Hannah, 1996; Ver Steeg, 1984). The HEA of 65 sought to provide affordable postsecondary education to minorities, women, and those of low-income because of the advantage higher education afforded individuals and society—advantages of social worth and marketplace value (Burd, 1998; Danforth, 1984; Gladieux, Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hauptman, & Knapp, 1997; Park, 1977; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; McGuiness, 1997; Selingo, 2000; Simon, 1984; U.S. Department of Education, 1998; Ver Steeg, 1984). The HEA of '65 helped the individuals who previously could not afford a postsecondary education. It provided funding for the less fortunate citizen (Danforth, 1984; Hannah, 1996; Simon, 1984), and improved their skills for the marketplace (Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; McGuiness, 1997; Selingo, 2000; U.S. Department of Education, 1998). This help came in the form of grants for low-income and minority students, and loans for the middle-income students (Griffith, 1986;

Hannah, 1996; Martin, 1992). In the same way that the federal government saw access as a Democratic societal obligation, they saw affordability as a necessary component of providing access. Over time, the nation began to demand an accounting for the money spent on those individuals who previously could not afford a postsecondary education (Burd, 1988; Gladieux, Hauptman, & Knapp, 1997; Griffith, 1986; Hannah, 1996; Lovell, 1997; Martin, 1992).

Accountability

Accountability as a major issue, according to the literature, came about in response to three significant changes in the United States: (1) the national mood desiring smaller government; (2) partisan issues of trust on Capitol Hill and between Capitol Hill and the White House; and (3) an invading business ethos (Burd, 1998; Gladieux, Hauptman, Knapp, 1997; Griffith, 1986; Hannah, 1996; Lovell, 1997; Martin, 1992; Ruppert, 1997). In 1981, President Reagan entered office with a promise to get government off the backs of the people (Hannah, 1996; Rosenzweig, 1984). This translated to reduced budgets for social programs, a serious consideration for the dissolution of the Department of Education as a cabinet level office, and a reduction in productive communication between higher education and the White House (Burd, 1998; Gladieux, Hauptman, & Knapp, 1997; Griffith, 1986; Hannah, 1996; Martin, 1992). Coupled, these problems fostered the mistrust and added fuel to the disagreement between Capitol Hill and the White House. In this polarized battleground, higher education sought friendly relationships. Higher education built friendly relationships with the federal legislators on Capitol Hill (Danforth, 1984; Gladieux, Hauptman, & Knapp, 1997;

McGuiness, 1997; Rosenzweig, 1984; Simon, 1984). The nation interpreted this as a push for personal gain and began to demand an accounting for the money spent on higher education (Gladieux, Hauptman, & Knapp, 1997; McGuiness, 1997). While the relationship between higher education and the federal legislators improved, the invading business ethos did little to help the plight of higher education (Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; McGuiness, 1997; Selingo, 2000; U.S. Department of Education, 1998). The national mood seemed to see access to affordable higher education as less of a Democratic, social obligation. Instead, the national mood towards spending on social programs demanded greater oversight, less autonomy, immediate payback, and greater accountability (Gladieux, Hauptman, & Knapp, 1997; Griffith, 1986; Hannah, 1996; Lovell, 1997; Martin, 1992). In what way did these issues of access, affordability, and accountability develop through the Higher Education Act of 1965 and its subsequent Amendments and Reauthorizations?

Chronology of Federal Higher Education Legislation

The HEA '65 sought to meet need and reward talent (McPherson & Shapiro, 1998) through policy that addressed the issues of access and affordability. The federal government conceived of the HEA '65 as a way to support a social good, the good of higher education for the society (Bailey, 1997; Gladieux, Hauptman, & Knapp, 1997; Griffith, 1986; Hannah, 1996; Martin, 1992). The Act directed financial support and established rules governing the

access to higher education as a way to address the social improvements sought. The HEA '65 recognized the importance of higher education as a way to improve the quality of each individual's life, and to improve the American way of life. It was an attempt by the federal government to deal with the states problems that the federal government thought states could not handle effectively (Gladieux, Hauptman, & Knapp, 1997; McGuiness, 1997). In some ways the HEA '65 interfered with the role of the state to govern higher education (Hannah, 1996; Keppel, 1987; Rosenzweig, 1984; SHEEO, 1984) and in some ways the HEA '65 supported states in their efforts to provide higher education opportunities to students (Hannah, 1996; Jenkins, 1982; Keppel, 1987; Pelczar, 1984; SHEEO, 1984; Steinbach, 1982).

The federal government demanded states provide access to higher education as a social requirement and to provide support measures to ensure affordable access. The HEA '65 was the federal government's way to offer the support of its coiffeurs. The federal government did so through student aid and institutional aid. Access to higher education for minority and low-income students definitely met with success. "The total college enrollment by non-white students was 6.5% in 1960, and 8.2% in 1970" (Griffith, 1986, p. 4). While the percentage of students enrolled did not match the population percentages, it was an improvement. The level of preparation for the minority, women, and low-income students were lagging behind the white and middle-to high-income students, however they were also improving. The policy, by objective measures, seemed to be working and seemed to be good higher education public policy. However,

some saw a different picture developing as the HEA '72 debates started on Capital Hill.

While the "unique pluralism that characterizes American higher education" (SHEEO, 1984) began to unfold, the inability to decipher the reports within context demanded revisions for the HEA '65. The "access goals of HEA '65 were strengthened through various enhancements in the late 1960's, culminating in the far-reaching 1972 Amendments" (Hannah, 1996, p. 504). These Amendments sought to address the primary issue of equal opportunity in context and with an eye towards favoring the student over favoring the institution in the proffer of funds (Griffith, 1986; Martin, 1992). Granted, institutions had painstakingly taken measures to improve access, the attendance rates for non-whites, women, and low-income students may have shown improvements. But, the needs-based concepts behind the student aid aspects of the HEA '65 were disproportionate. The 1972 Amendments kept HEA '65's need-based loan programs but sought to provide additional funding through the Student Loan Marketing Association (Sallie Mae) (Griffith, 1986; Hannah, 1996; Keppel, 1987; Pelczar, 1984; Rosenzweig, 1984). In addition, higher education "was expanding to include non collegiate career preparation and occupational education offered in community colleges and proprietary institutions (Hannah, 1996, 504). The social good of the federal higher education acts were modified to ensure continued success of affordable access to undergraduate higher education for the market place (Gladieux, Hauptman, and Knapp, 1997; Hannah, 1996; Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel,

Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; Martin, 1992; McGuiness, 1997; Selingo, 2000; U.S. Department of Education, 1998).

After the Amendments of 1972, the higher education community sought to rectify a shortcoming of the federal legislation towards graduate education. Little effort to address the plight of the graduate student ensued after the HEA '65 and modest gains were made in the Amendments of 1972. Reauthorizations of the 1980's were to help graduate education in five ways (Simon, 1984). First, the legislation ensured support for graduate students through support of the institutions they attended, college work study, Pell Grants, and graduate fellowships. Second, the legislation sought to increase the number of women in graduate studies. Third, the legislation sought to address the pressing needs for highly trained experts. Fourth, the legislation had a goal of ensuring laboratories, equipment, and instrumentation were high quality in support of the quality demanded of the graduate student. Finally, in response to "the precipitous drop in support for college and university libraries" (Simon, 1984, p. 15), the legislation proposed measures to enhance the quality of libraries and to support the maintenance costs for valuable collections.

In addition to the responses for supporting the graduate student, the federal legislators raised loan limits, strengthened collection procedures, and instituted investigations into the fraud by individuals and institutions of the federal fiscal support for higher education (Gladieux, Hauptman, and Knapp, 1997; Griffith, 1986; Hannah, 1996; Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001;

Heller, 2001; Jones & Ewell, 1993; Keppel, 1987; Martin, 1992; McGuiness, 1997; Pelczar, 1984; Rosenzweig, 1984; Selingo, 2000; U.S. Department of Education, 1998). As an aside, but an equally important aspect of the legislation, some on Capitol Hill and in the Department of Education sought improvements to measurements employed. The simple head-count as a measure of success seemed to some as an errant and unsophisticated method to judge the effectiveness of higher education legislation dealing with access. Post HEA '72, women, non-whites, and low-income students experienced phenomenal attendance growth (Eaton, 1992, 238). However, the growth appeared disproportionate in some groups. Without culling through the data the numbers could not tell legislators whether the legislation was good higher education public policy. The sheer volume of dollars spent without adjusting for changes in the economic situation provided no context to evaluate the desired outcomes of the affordability legislation. Again, without properly analyzing the data, legislators could not tell whether the legislation was good higher education public policy. Spending federal monies without proper accounting also did not settle well with the legislators and the national mood seemed to shift from one that supported higher education out of a social obligation to one that saw higher education as a monster to tame. It seemed legislators were not passing good higher education public policy based on public sentiment. These were the prevalent sentiments as debate in the 1980's continued and the HEA 92 Reauthorization took place.

The evolution and incremental adjustments to HEA 65 created a gaggle of higher education public policy without a clear sense of purpose or direction

(Martin, 1992). Federal legislators originally designed the Higher Education Act of 1965 in response to a social obligation to help low-income, women, and minority students gain access to affordable higher education primarily through grants. The shifting national mood, the acerbic and acrimonious relationship between Capitol Hill and the White House, the budget deficits, and the encroaching business ethos combined shifted federal support from grants to loans (Gladieux, Hauptman, & Knapp, 1997; Hannah, 1996; Martin, 1992). In so doing, the normal business processing for loans took over along with the stringent accounting associated with funds disbursement (Martin, 1992). These accountability changes also made their way into other aspects of the legislation. The issue of accountability seemed to overtake the issues of access and affordability.

Accountability took center stage for a number of reasons to include the deficit, the Presidential elections, and the shift in national mood (Gladieux, Hauptman, & Knapp, 1997; Hannah, 1996; Martin, 1992). The deficit of the 1980's demanded redress. Because of the budget deficits, legislators reduced spending in many areas of federal support. Increasing enrollments, increasing tuition, and increasing default rates portend to a shortfall in available funds that demanding an accounting (Gladieux, Hauptman, & Knapp, 1997; Hannah, 1996; Martin, 1992). The timing of the 1992 Reauthorization with the Presidential election put higher education in an untenable situation. Higher education could not compete with some of the issues in the election debates (Hannah, 1996). Political battles took precedence over rational discourse, and the polarizing effects

of the election likewise polarized opinions regarding higher education. Finally, the national mood towards higher education completed its shift from a supportive position to a more adversarial position. The public saw higher education as an Ivory Tower (Bok, 1984) unresponsive to the needs of the people, the marketplace, and social mores (Gladieux, Hauptman, and Knapp, 1997; Griffith, 1986; Hannah, 1996; Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; Keppel, 1987; Martin, 1992; McGuiness, 1997; Pelczar, 1984; Rosenzweig, 1984; Selingo, 2000; U.S. Department of Education, 1998). Scandals that included administration, faculty and students, political correctness, affirmative action, research fraud, disagreements on curriculum, and abuses of federal money all set the stage for a backlash of sorts (Gladieux, Hauptman, and Knapp, 1997; Griffith, 1986; Hannah, 1996; Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; Keppel, 1987; Martin, 1992; McGuiness, 1997; Pelczar, 1984; Rosenzweig, 1984; Selingo, 2000; U.S. Department of Education, 1998). The public demanded accountability and its representative government acquiesced. Federal government looked to the states for help. In 1992, they established the State Postsecondary Review Entities (SPRE) to handle the oversight "of the efforts to control the aggressive abuses of aid programs" (Lovell, 1996, p. 338). The federal government enlisted the state in responses to calls for accountability. "Specifically, SPRE law authorized the Secretary of Education to request each

governor to designate an entity that would serve as the SPRE for the state. The states' role was to review institutions that were identified or 'triggered' by a set of legislative criteria [to problems of accountability]" (Lovell, 1996, p. 339). The state no longer held a passive role; it was brought to the fore in an active role in accounting for the provision of affordable access to higher education (Gladieux, Hauptman, and Knapp, 1997; Griffith, 1986; Hannah, 1996; Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; Keppel, 1987; Martin, 1992; McGuiness, 1997; Pelczar, 1984; Rosenzweig, 1984; Selingo, 2000; U.S. Department of Education, 1998).

The literature reports how the ideals of HEA '65 and HEA '72 met with the fiscal constraints of the 1980's, the changes in national mood, and growing business ethos in government culminating in the HEA 92 as a restructured approach to access and affordability with the introduction of accountability issues. Across the nation the idea of reviewing programs, as exemplified by the SPRE, met with great initial support. The state no longer had a passive role in the provision of affordable access to higher education. The state was now legally accountable to the federal government. How did these changes in public policy of access, affordability, and accountability influence the public policy at the state level?

The changes in the higher education public policy at the federal level coincided with a movement towards a professional legislature (Sabloff, 1997). In other words, the state legislatures of the 1960's were quite satisfied to have the

benefits of the federal largess supporting the state colleges and universities (Gladieux, Hauptman, and Knapp, 1997; Griffith, 1986; Hannah, 1996; Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; Keppel, 1987; Martin, 1992; McGuiness, 1997; Pelczar, 1984; Rosenzweig, 1984; Selingo, 2000; U.S. Department of Education, 1998). However, as mistrust began to grow and amendments to the policy changed the funding distribution and methods from institutions to individuals, states saw the need for greater involvement (Burd, 1988; Gladieux, Hauptman, & Knapp, 1997; Griffith, 1986; Hannah, 1996; Lovell, 1997; Martin, 1992). State loan programs and state guarantors started to appear in the equation (Hannah, 1996). Reporting results to the federal government of the actions taken at the state level also helped the states identify their own shortcomings (Gladieux, Hauptman, & Knapp, 1997; Lovell, 1997; McGuiness, 1997). Those with an eye to the social obligation associated with providing affordable access to higher education began programs at the state level to monitor higher education (Burd, 1988; Gladieux, Hauptman, & Knapp, 1997; Griffith, 1986; Hannah, 1996; Lovell, 1997; Martin, 1992). After the 1972 amendments, issues of eligibility, inflationary tuition changes, and shifts in national mood towards a mistrust of the federal government influenced state public policy on access, affordability, and accountability. In the 1980's, the new marketplace of information technology demanded a more educated workforce (Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones &

Ewell, 1993; McGuiness, 1997; Selingo, 2000; U.S. Department of Education, 1998). The states that benefited from the booming market started to place funds into their higher education system (McGuiness, 1997). Entrepreneurial higher education systems started to blossom and sought state charters to gain access the vast funding available (Congressional Record, 1990; Lovell, 1997). By 1992, fraud, waste, and abuse seemed to have grown in an alarming proportion. In addition, the federal government started to hold the states responsible for the increasing default rates (Congressional Record, 1990; Gladieux, Hauptman, & Knapp, 1997; Hannah, 1996; Lovell, 1997; Martin, 1992). As for the preliminary interest of access, the data reported increased enrollment figures however, the quality of the education came under scrutiny. State legislatures saw their situation as dire and began to make adjustments through their newly acquired business ethos education (Hauptman, Hamill, Wellman, Rodriguez, Mingle, Michaelson, Novak & Johnson, 2001; Hebel, Schmidt, Selingo, & Yachnin, 2001; Heller, 2001; Jones & Ewell, 1993; McGuiness, 1997; Selingo, 2000; U.S. Department of Education, 1998). They sought to balance costs and benefits, demanded to know the bottom line, and expected immediate payback on their investment into higher education. The legislation of the 1990's took on a different flavor but the legislation still addresses the three major issues of access, affordability, and accountability. What this study seeks to assess is the reported accuracy of public policymaking models, as reported by SHEEOs and LECCs, in addressing the three major issues. The next main area of the literature discusses the literature relevant to the methodology used in this study to assess the three models of

Kingdon, Lindblom, and Lovell, and the three major issues of access, affordability, and accountability.

Methodology

Section five addresses the literature on qualitative content analysis, the state as a unit of analysis, the use of surveys as instruments, and selecting samples and populations.

Qualitative Content Analysis

Content analysis is a set of techniques used to analyze text with presentations of findings ranging from tabular presentations to more complex statistical and computer analysis (Gall, Borg, & Gall, 1996; Gerbner, Holsti, Krippendorff, Paisley, & Stone, 1969; Holsti, 1969; Krippendorff, 1980; Weber, 1985; Yanow, 2000). Most content analysis involves collecting and examining forms of communication for encoded categories and then making inferences about the coded messages. While content analysis is useful as a study of communication tools, it is also applicable in working to "reveal the focus of individual, group, institution, or societal attention" (Weber, 1985, p. 9). Three basic problems to content analysis, which are not dissimilar to other research methodologies, are sampling, reliability and validity. In this section is a description of the process(es) required to conduct a content analysis as reported in the literature, followed by a discussion of the means used to address the three problems of sampling, reliability, and validity. This section closes with a description of how content analysis supports the process for survey item

development. "Content analysis can be used for many purposes" (Weber, 1985, p. 9). How a researcher intends to use content analysis requires they first address the three requirements of objectivity, system, and generality (Holsti, 1969).

"Objectivity stipulates that each step in the research process must be carried out on the basis of explicitly formulated rules and procedures" (Holsti, 1969, p. 3).

Objectivity, then, requires the researcher establish what they intended to analyze, for what reasons (e.g. research questions), and using which coding. While labeled objectivity, the process relies heavily on the subjectivity of the researcher (Gall, Borg, & Gall, 1996; Holsti, 1969; Weber, 1985). However, the subjectivity must conform to qualifications. These qualifications include using acceptable terms within the field of study, ensuring other researchers would be able to repeat the procedure and discover the same 'subjective' categories and/or coding, and that the full spectrum of items were examined not just those in support of the presuppositions of the subjectivity (ies). For example, a researcher in the field of education ought to use terms associated with education and not terms associated with physics; the researcher ought to explicitly state their procedures so follow-on research can test the method; the researcher ought to seek contradictory items to rigorously test the categories/coding selected. By using terms from within the field, ensuring repeatability, and rigorously examining both the pro and the con items, objectivity is more likely to occur. However, the researcher still must address the system used.

A sound system is systematic. "Systematic means that the inclusion and exclusion of content or categories is done according to consistently applied rules"

(Holsti, 1969, p. 4). Subjectivity once again enters into the equation. How a researcher defines the rules of analysis is subjective. As mentioned in the previous paragraph, the subjectivity, while unavoidable, ought to conform to qualifications. Once qualified, the systematic approach to the analysis demands consistent application of the rules. Yet, the subjectivity of prescribing rules does not permit the researcher exclusive freedom in developing rules of categories and coding (Gall, Borg, & Gall, 1996; Holsti, 1969; Krippendorff, 1980; Weber, 1985). To the contrary, rules of categories and coding must conform to "certain general canons of category construction" (Holsti, 1969, p. 4) which include exhaustive, mutually exclusive, and independent. Therefore, the system developed by the researcher for categorizing and coding must be consistently applied and derive from an exhaustive, exclusive, and independent set of categories. However, a systematic analysis of items also requires the items have a theoretical underpinning.

"Generality, then, requires that the findings must have theoretical relevance" (Holsti, 1969, p. 5). Generality implies an interpretation of the meaning of the categories, coding, and items in each coded category. In other words, a content analysis of a set of concordances, while conforming to objectivity and system, does not warrant content analysis because the concordance is the intended end product. However, a review of paper, article, book, or groups of communication tools to discover categories is a worthwhile endeavor. It is incomplete without applying the idea of generality; the categories and codes require application of shared meanings and interpretations. It is of little

value to the content analyst to state simply the categories of codes, or even to take the next step and state the number of occurrences of a category in a document.

The content analyst must then make meaning of the category and its frequency; they must compare the results of the inquiry with known theories about the categories. "Thus all content analysis is concerned with comparison, the type of comparison being dictated by the investigator's theory" (Holsti, 1969, p. 5).

Taken together, the three requirements of objectivity, system, and generality do not differ from most other scientific endeavors of inquiry. As a matter of fact, the method of content analysis, as described by the literature, is no different than the methods of discernment engaged in by people in everyday situations. Content analysis, as a scientific research system, is useful in more than commonplace situations of discernment. It is exceptionally useful when the 'data' available are limited to documentary evidence, the researchers' language (coding and categories) are crucial, and when the bulk of information is too great to examine completely (Holsti, 1969; Weber, 1985; Yanow, 2000). How does such a commonplace tool become a useful and rigorous methodology for researchers? The answer lies in determining the sample of items studied along with the reliability and validity measures taken.

When the bulk of information is too great to examine completely, sampling is an excellent way to practically approach the analysis. Sampling, while practical, is not merely a process of reduction. Sampling is also a systematic process to represent the whole as nearly as possible but still maintaining a manageable amount of information that is credible (Gall, Borg, &

Gall, 1996; Gerbner, Holsti, Krippendorff, Paisley, & Stone, 1969; Krippendorff, 1980; Weber, 1985; Yarrow, 2000). The process for sampling in content analysis does not differ from the basic sampling routines in other methodologies.

Sampling can be simple random sampling, systematic sampling, stratified sampling, cluster sampling, or convenience sampling. Simple random sampling occurs when each member of the population has an equal chance of selection.

The advantage to simple random sampling is the strength associated with generalizability—a purely random sample will generate results that have errors which statistics can calculate and accommodate in the inferences. Systematic sampling is similar to random sampling with the exception that a rule for selection is now imposed. For example, selecting every third document is a systematic sampling method. While similar, the systematic sampling method is not as strong as simple random sampling because the system may unintentionally eliminate core aspects of the population. Stratified sampling helps counteract the problems associated with the systematic sampling by first establishing guidelines such as population subgroups. A representative sampling of the population that matches the proportion of the subgroups would then ensue. Again, the drawback to this method lies in the restrictions of generalizability. Cluster samples allow the researcher to use naturally occurring groupings. Clusters allow for a more convenient access to a population while still maintaining the integrity of the population and the sample. Again, statistical analysis of cluster samples portend to less strength however, special formulas help improve the strength. At issue, generally, in cluster samples is savings of time and money. Finally, convenience

sampling provides a suitable but expedient sample for the researcher.

Convenience sampling does require a considerable amount of work in defending the sample selected to ensure the results are rigorous and meaningful. A variety of statistical methods exist to make the analysis statistically meaningful. While these sampling techniques each have their advantages and disadvantages, they all must consider the effects of the sample on the outcome of the research (Gall, Borg, & Gall, 1996; Gerbner, Holsti, Krippendorff, Paisley, & Stone, 1969; Krippendorff, 1980; Weber, 1985; Yarrow, 2000).

Along with considering the appropriate sample and the effects of the sample on the outcome of the research, the content analyst must consider the reliability and validity of the analysis. Reliability is a test to determine whether a particular technique applied repeatedly to the same object yields the same result each time (Babbie, 1990, 132). Reliability assesses the extent to which the data collected represent real incidents "rather than the extraneous circumstances of measurement, the hidden idiosyncrasies of individual analysts, and surreptitious biases of a procedure" (Krippendorff, 1980, p. 129). Repeated measures with the same instrument should yield the same results. Therefore, reliability depends upon stability, reproducibility, and accuracy (Holsti, 1969; Krippendorff, 1980; Weber, 1985). Within the area of content analysis, two overarching areas of reliability are crucial to address. These two areas are individual reliability and category reliability. Individual reliability refers to the agreement between coders, between the individuals conducting the content analysis (Holsti, 1969; Weber, 1985). Category reliability depends on the ability of the researcher to establish

proper categories. The two areas, individual reliability and category reliability, ultimately measure how well the coders fit the data from the research into the appropriate categories and how well the categories fit the research. Within these two major areas, the literature reveals three distinct types of reliability; stability, reproducibility, and accuracy (Holsti, 1969; Krippendorff, 1980; Weber, 1985).

"Stability is the degree to which a process is invariant" (Krippendorff, 1980, p. 130). In other word, stability is an assessment of the variability in the process of coding and categorizing. If the category is unstable, it will yield different results each time it a coder uses it to measure the same phenomena. Stability is also related to the ability of the coder to remain consistent throughout the process of categorizing. Therefore, stability is an assessment of the variability in the coders' categorization. A measure that is not stable is said to suffer from errors of intra-observer inconsistencies. Intra-observer inconsistencies are those inconsistencies that result from one observer, or coder, assessing similar data that belong in one category but instead placing in them in more than one category. *"Stability is the weakest form of reliability and should not be trusted as the sole indicator of the acceptability of content analysis"* (Krippendorff, 1980, 130-131). A stronger form of reliability is reproducibility.

"Reproducibility is the degree to which a process can be recreated under varying circumstances, at different locations, using different coders" (Krippendorff, 1980, p. 131). For example, were two different coders to analyze the same set of data and arrive at the different results, the categories are not reproducible. Two likely possibilities exist if the analysis is not reproducible:

intra-observer inconsistencies or inter-observer disagreements (Krippendorff, 1980, 131). As mentioned earlier, intra-observer inconsistencies are those inconsistencies that result from one observer, or coder, assessing similar data that belong in one category but instead placing in them in more than one category. Inter-observer disagreements are those disagreements that result when two different coders place the same data in different categories. Either way, the net result is process that is not recreated consistently. Other terms for reproducibility are "inter coder reliability, intersubject agreement, or consensus among coders" (Krippendorff, 1980, p. 131). Regardless of the term, the net result is a system that lacks reproducibility and therefore is less likely to be reliable. While a stronger form of reliability than stability, it is not as strong as accuracy.

"*Accuracy* is the degree to which a process functionally conforms to a known standard, or yields what it is designed to yield" (Krippendorff, 1980, p. 131). The known standard, or norm, is an accepted standard used by the experts in the field and born out by repeated research efforts that fail to disprove the norm, or know standard. Therefore, aside from the two previously mentioned errors possible of intra-observer inconsistencies and inter-observer disagreements, accuracy adds a third error assessment: systematic deviations from a norm (Krippendorff, 1980). Systematic deviations from a norm are those inconsistencies that result from poor training of the coder, poor development of categories at the inception of the study, or categories that do not accurately reflect the agreed-upon norms in the field. Accuracy is therefore a conglomeration of the previous two types of reliability with the addition of normative standards and is

the strongest of the three types of reliability. However, a test of the reliability of the content analysis is not the final point, the researcher must also consider the problems of validity.

Validity is the extent to which an empirical measure adequately reflects the *real meaning* of the concept under consideration (Babbie, 1990, 133).

Validity is measuring what is intended to be measured (Gall, Borg, & Gall, 1996; Gerbner, Holsti, Krippendorff, Paisley, & Stone, 1969; Krippendorff, 1980; Weber, 1985; Yarrow, 2000). "The importance of validation lies in the assurance it provides that research findings have to be taken seriously in constructing scientific theories or in making decision on practical issues" (Krippendorff, 1980, p. 155). The literature distinguishes four major methods to conduct validation of content analysis: semantic or content validity; correlational or concurrent validity; construct validity; and predictive validity. While references to internal and external validity occur, "internal validity is merely another term for reliability" (Krippendorff, 1980, p. 156). Therefore, this discussion addresses only external validity or the "degree to which variations inside the process of analysis correspond to variations outside the process and whether the findings represent the real phenomena in the context of the data as claimed" (Krippendorff, 1980, p. 156). The first type of validity to examine is semantic or content validity.

"Semantic validity assesses the degree to which a method is sensitive to the symbolic meanings that are relevant within a given context" (Krippendorff, 1980, p. 157). Content validity concerns itself with the correspondence between the investigators' definition of a concept and his or her definition of the category

that measures it. Semantic validity occurs when experts agree with the categories and the intended representation it purports to make (Holsti, 1969; Krippendorff, 1980; Weber, 1985). Semantic or content validity is the evaluation of the connotations the categories intend to portray and is heavily reliant on the evaluation of experts and of the literature. The second type of validity mentioned in the literature is correlational or concurrent validity.

Correlational validity is "the degree to which findings obtained by one method correlate with findings obtained by another and thus justify their suitability" (Krippendorff, 1980, p. 157). An important player in correlational or concurrent validity "is the external criterion with which data are being compared" (Holsti, 1969, p. 145). In addition, the correspondence between the data and the theory helps the content analyst determine the degree of correlational or concurrent validity. When the relationship "behaves as it is expected to, according to the theories" (Weber, 1985, p. 20), then it is said to have correlational or concurrent validity. Correlational or concurrent validity is a measure of similarity to other like measures, external measures, that exist in fact or in theory. The third type of validity is construct validity.

Construct validity not only concerns itself with the measure, but also with the theory tested (Holsti, 1969). "Construct validity involves basically two steps; (1) an effort to generalize available knowledge to a particular context; and (2) to logically derive from valid generalizations the particular propositions underlying the procedure used" (Krippendorff, 190, 167-168). In other words, construct validity concerns itself with the construction of the codes and categories as

accurate measures of the categories they intend to represent. For example, a category labeled "Involve Stakeholders" meets the criterion of construct validity if it measures involvement of stakeholders and not the assessment of stakeholder value statements or something other than involvement. Construct validity allows for accurate generalization and supports the next step which is predictions.

A measure has predictive validity when it *predicts* events within the study that relate to events outside the study, either in the future or in the past (Holsti, 1969; Krippendorff, 1980; Weber, 1985). "Predictive validity is the degree to which predictions obtained by one method agree with directly observed facts" (Krippendorff, 1980, p. 157). Predictive validity demands high agreement with the predicted outcome and high disagreement with the excluded possible outcomes (Holsti, 1969; Krippendorff, 1980; Weber, 1985). In other words, predictive validity concerns itself with the ability to correctly predict events for which no present evidence can predict the outcome, whether looking towards future events or examining past events. "Predictive validity is powerful because the inferences from data are successfully generalized beyond the study to situations not under the direct control of the investigator" (Weber, 1985, p. 20). Predictive validity, as the name implies, is the measure of accuracy in predictions.

Use of the Survey as an Instrument

In this section is a brief discussion of the use of the survey as the primary data collection tool. The section addresses the scientific characteristics, the importance of item construction, and the ethical limitations of public policy research that a survey method preserves. The literature describes survey research

as scientific and exceptionally useful in addressing a multitude of issues in a single instrument. As previously discussed in this chapter, the literature reports the five scientific characteristics of survey research as including: (1) logic, (2) determinism, (3) general applicability, (4) parsimony, and (5) specificity (Babbie, 1990). The next paragraph reviews the previously discussed five scientific characteristics of survey research.

First, the survey questions, their phenomenon of interest, and the rigorous testing of the instrument follow reasoned, logical steps (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Second, the survey provides a mechanism for the researcher to observe the phenomenon of interest from a variety of viewpoints with a single instrument to describe and determine possible causes or determinants. Third, by collecting data through the survey, a number of data analysis options exist that are not as readily available, or as inexpensive, as other methods of data collection in the social sciences, especially because of the relatively non-invasive method and the bulk of data that surveys can collect (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Fourth, the survey format allows for a frugal collection device (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). "Since the survey format lends itself to the collection of many variables that can be quantified and processed" (Babbie, 1990, p. 42), it is parsimonious. Finally, survey research is specific in that it affords the opportunity to study only the predetermined phenomenon of interest. In addition to meeting scientific demands as a method, the literature describes how the survey

instrument relies on good items—the questions on the survey instrument—to ensure a rigorous examination.

Likert (1951) points out five important steps to remember in producing good survey items: (1) wording, (2) securing all data, (3) question ordering, (4) including all relevant variables, and (5) using a familiar vocabulary. What follows is a brief recap of the earlier discussion on producing good survey items. First, Likert mentions, “each question must be so clearly worded that it is readily and correctly understood by all the respondents” (Likert, 1951, p. 241). One way to accomplish this is with a panel of experts (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Securing all the data required is the second important step Likert mentions. Along with a panel of experts, a pilot test of the survey and subsequent data analysis can help ensure the questions secure all the data required for the final analysis (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Third, question order can influence the data (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Aside from problems of clarity, format and internal relationships, especially those related to the order of questions, present difficulties the survey researcher must address (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Fourth, while the order is important, it is equally important that the survey gather all the relevant information on the variables necessary for analysis. Aside from overlooking important variables, overlooking the examination of the specific variables by failing to address the variable in the survey create problems in the analysis (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Finally, the included questions ought to flow

in a familiar language to the respondents. The literature reports that such wording and flow of the survey come from a strong grasp of the phenomenon of interest by the researcher. It requires an expertise on the part of the researcher of both the research literature and the operational use of the information surveyed (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Aside from the scientific research advantages and the construct of good items, the survey answers the ethical limitations.

The survey works as an effective data collection tool because of ethical limitation on experimentation with public policy by researchers (Babbie, 1990; Capron, 1975; Dillman, 2000; Hyman, 1951; Likert, 1951; Rivlin & Timpane, 1975; Schelling, 1975; Schultze, 1975). Because the ethical limits to policy science precluded experimentation as a method to test ideas and suppositions about phenomenon of interest (Capron, 1975; Rivlin & Timpane, 1975; Schelling, 1975; Schultze, 1975), when researchers discovered 'natural' occurrences of the phenomenon of interest they investigated the occurrence(s). A survey allows researchers to present experimental policies and to determine its possible effects. This limits harm while improving understanding and adding to the knowledge of policy research and analysis. Therefore, for a rigorous, determined, parsimonious, and specific scientific investigation of public policy that preserves the ethical limitations of policy experimentation, the literature reports that a survey that relies on good items works best.

Summary

According to the literature, good public policymaking models are merely abstractions of the public policymaking process. Policy analysts have a professional obligation to ensure the public policymaking models accurately reflect existing processes for producing good higher education public policy. Without accurate models, correctives to the policymaking process are futile at best and destructive to society at worse. Inaccurate models may lead to bad public policy (Bowen, 1977; Easton, 1965b; Lasswell, 1951). Producing bad higher education public policy has dire consequences for both higher education and society in general. The dire consequences of producing bad higher education public policy include: wasting resources; destroying academic environments; reducing or eliminating positive effects on the students, faculty, administration and staff; and hampering the performance of society (Bowen, 1977). What does the literature report as the historical context of models of public policymaking in the policy sciences and specifically in the study of higher education public policy? What does the literature report as the current condition of models of higher education public policymaking? Which models does the literature report as worthy of assessment? What does the literature report as the appropriate spectrum of issues across which to test a model? What does the literature report as an effective way to conduct testing of models of higher education public policymaking? What does the literature report as the realm of participants?

The literature reports on the brief historical context of models of public policymaking in the policy sciences. It starts by describing that the newly formed

scientific study of policy, policy science, initially concerned itself with the study of the social interaction between the politicians, the public, the problems, the policies, and the policymaking process (Almond, 1966; Barzun, 1963; Crosson, 1984; Hartmark & Hines, 1986; Bowen, 1977; Braybrooke & Lindblom, 1963; Dror, 1971; Easton, 1965b; Hofferbert, 1974; Lasswell, 1951; Lincoln, 1986). The literature continues by explaining that early policy science did not enjoy a respected position in the field of research because of its reliance on non-scientific methods and restrictions on testing of methodologies and tools. The restriction on testing stemmed from both a poor application of scientific methodology and from a self-imposed moratorium on experimental policies. The moratorium resulted from a demand for ethical treatment of the public by not experimenting with policies since that could cause public harm. To conduct valuable and useful research into public policymaking and to ensure policy science earned respect as a serious and scientific study of the public policymaking process, policy science pioneers sought to develop tools and apply methodological rigor to the testing of their tools.

Pioneers in policy science of the 1930's and early 1940's began to develop the primary research tool of frameworks upon which theories and models should later arise. Unfortunately, a large number of pioneer policy scientists emigrated from the world of policy analysis to that of policy advocacy in the post-WWII era. In doing so, the literature reports these pioneers leaving behind their incomplete work of tool development and testing. Public policy model testing was therefore absent in the formative years of policy science. Two to three decades later, the

field of policy science bemoaned this profound paucity of testing research (Almond, 1966; Anderson, 1979; Crosson, 1984; Hartmark & Hines, 1986; Lincoln, 1986; Lindblom, 1979; Sabatier, 1999). What does the literature report as the current condition of models of higher education public policy and their testing?

Other fields and disciplines that sought to understand and teach policy science inherited the endemically anemic work on the tools of frameworks, theories, and models and their testing. Corrections were scarce in the broad arena of policy science. In the specific higher education public policy arena, it was not until the mid- to late-1980s that researchers and analysts began to address the need for developing theoretical research and the subsequent rigorous testing of models (Crosson, 1984; Deegan & Tillery, 1986; Hartmark & Hines, 1986; Keller, 1986; Leslie & Beckham, 1986; Lincoln, 1986; Peterson, 1986; Thelin, 1986; Weiner, 1986; Zemsky & Tierney, 1986). The higher education public policy literature began a call for testing of the models used in the analysis of higher education public policy making. While higher education may have addressed the problem of inadequate testing by making the call, it still has not begun rigorous testing of the models developed to date or currently in use, even though a number of models exist worthy of testing. Which models does the literature report as worthy of assessment?

This study examines three models the literature points to as worth of testing, Kingdon's Multiple Streams, Lindblom's Incrementalism, and Lovell's Three-Tier Taxonomy. Kingdon's model is worth testing because it is a unique

extension of the Garbage Can model (Cohen, March, & Olsen, 1972). Cohen, March, & Olsen described the decision-making process of higher education as a process of organized anarchy. Kingdon applies the idea of organized anarchy to the field of policymaking. Kingdon's Multiple Streams model describes the agenda setting process in the organized anarchy of public policy agenda setting as a combination of three streams (problems, policies, and politics) in a window of opportunity. Lindblom's model is worth testing because it is the earliest opposing model to the Rational-Comprehensive framework presented by policy science pioneers. Lindblom's model offers incrementalism as a decision-making model in which policy change occurs through small, incremental steps (Lindblom, 1959) and necessarily as a rational process of decision-making. Lindblom also addresses the idea of a comprehensive analysis of all options as an unrealistic precondition and an impossible task for any human being. Lovell's model is worth testing because it is the most recent model and is strictly a higher education public policy model. Lovell's (2000) taxonomy for *good* public policy was presented to the Public Policy Pre-conference of the Annual American Association for the Study of Higher Education (ASHE). Lovell's model describes a need for involvement of stakeholders in the policymaking process, congruence between policy and stakeholder values, and avoidance of micromanagement. If the literature supports these three models as worthy for testing, what does the literature report as the appropriate spectrum of issues across which to test models of higher education public policy?

The literature calls for testing of models across the full spectrum of higher education issues (Hartmark & Hines, 1986; Heller, 2001; Keller, 1986; Leslie & Beckham 1986; Lincoln, 1986; Peterson, 1986). The literature details a plethora of issues existing within higher education public policy. However, the literature helps here as well by categorizing all the issues facing higher education public policymaking into three main issue areas. The literature simplifies the testing of models across the full spectrum of higher education issues by providing the major issue areas upon which to conduct the testing: affordability, access, and accountability (Heller, 2001; McGuiness, 1997). With the three models and three major issue areas determined by the literature, what does the literature relate as an effective way to test the models of higher education public policy?

The testing of the three models across the three major issue areas can occur through survey research. Survey research provides for a reasoned, logical, and parsimonious method for collecting and analyzing data. In addition, the literature supports survey research as a scientific method. The literature reports the five scientific characteristics of survey research as including: (1) logic, (2) determinism, (3) general applicability, (4) parsimony, and (5) specificity (Babbie, 1990). In addition to meeting scientific demands as a method, the literature describes how the survey instrument relies on good items—the questions on the survey instrument—to ensure a rigorous examination. Likert (1951) points out five important steps to remember in producing good survey items: (1) wording, (2) securing all data, (3) question ordering, (4) including all relevant variables, and (5) using a familiar vocabulary. Therefore, for a rigorous, scientific

investigation of the three models across the three major issue areas this study requires a thorough and exacting development of a survey. The literature presents content analysis as one strong method for conducting a thorough and exacting set of survey items.

Content analysis is a set of techniques used to analyze text with presentations of findings ranging from tabular presentations to more complex statistical and computer analysis (Gall, Borg, & Gall, 1996; Gerbner, Holsti, Krippendorff, Paisley, & Stone, 1969; Holsti, 1969; Krippendorff, 1980; Weber, 1985; Yanow, 2000). Most content analysis involves collecting and examining forms of communication for encoded categories and then making inferences about the coded messages. Content analysis, as applied to model assessment, involves three simple stages: (1) examination (2) categorization; and (3) presentation. An examination of the models will lead to general categories, or themes, of each model and conclude with the presentation of the themes or elements. A Table of Specification will allow for the presentation of the elements of the models. The Table of Specification sets the guidelines for the item construction by juxtaposing each major policy issue and each model element. Specifically, how are good survey items produced according to the literature?

Wording of the item reflects the results of the thorough content analysis and the literature review on both the model and the major higher education public policy issue. The Table of Specifications also helps as a crosscheck to ensure the securing of all relevant data. Ordering the questions (items) on the survey by model and then by major issue area presents a sense of order and discipline to the

instrument, and alleviates the need for respondents to continually switch their attention (Babbie, 1990). The use of demographic questions helps ensure collection of all relevant data. The literature also describes how the use of a Panel of Experts and pilot testing (Babbie, 1990; Chase, 1978; Gall, Borg, & Gall, 1996) ensures the survey items use a familiar vocabulary to both the researcher and the respondents. Finally, the literature reveals how the survey responses provide data for this study to both describe and make inferences on the perceptions of the model as accurately portraying the higher education public policy making process. What does the literature report as possible respondents to the survey?

The literature calls for policymakers or those intimately involved in the policymaking process as the best candidates for respondents. The entire population of policymakers is too large for the confines of this dissertation; alternatives such as samples or sub-populations would work better. In addition, the literature reports using the state as the unit of analysis as most effective because higher education is a state issue. Therefore, using the sub-population of all state Legislative Education Committee Chairpersons would work best. These are the legislators with the greatest knowledge of higher education public policy, they are an identifiable group, and they are at the state level. In addition, the use of State Higher Education Executive Officers provides for a whole population of people intimately involved in the higher education public policymaking process. They add an additional perspective that allows for a more through investigation and broadens the ability to make inferences. In addition, the State Higher

Education Executive Officers have the opportunity to study the legislators and can report on observed behaviors of the policymakers. How does the literature lead to this study of policy science model testing, specifically testing models of higher education public policymaking?

The literature explains how through model testing the analyst can help the public policymaker formulate future policies that will help and not harm the public. This study responds to the literature by testing three models of public policymaking across the three major issue areas of higher education public policy through a rigorously and scientifically developed survey. The study seeks to test the models as accurately reflecting the higher education public policymaking process by surveying State Higher Education Executive Officer and Legislative Education Committee Chairpersons for their perceptions. From the responses to the survey, this study will infer the accuracy of the model across major issues of higher education public policymaking and answer the research questions in this study. The research questions seek to determine if the three models or elements of the models selected for this dissertation accurately reflect the process for making *good* higher education public policy as reported by the perceptions of the State Higher Education Executive Officer and Legislative Education Committee Chairpersons. The next chapter, Chapter Four, of this study describes the specific process for developing the methodology of this study and the instrument. Chapter Three also includes a discussion on testing for reliability and validity of the content analysis and the instrument. Chapter Four presents the collected data in tables and describes the data. The final chapter, Chapter Five, provides answers

to the research questions. In addition, the final chapter presents interpretations of the data going beyond the simple descriptions of Chapter Four. Chapter Five summarizes the study and submits new findings and directions for future research into the testing and use of models in higher education public policymaking.

CHAPTER THREE

METHODOLOGY

This dissertation addressed the lack of model testing in current higher education public policy research. The lack of quantitative, empirical testing of models was due in large part to the unfinished work of policy science and its pioneer efforts in testing frameworks, theories, and models for rigor (Almond, 1966; Barzun, 1963; Blum, 1992; Bowen, 1977; Braybrooke & Lindblom, 1963; Crosson, 1984; Dror, 1971; Easton, 1965b; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hatch, 1993; Hofferbert, 1974; Lasswell, 1951; Lincoln, 1986; Lindblom, 2002; Sorzano, 1975). Models help clarify the policymaking process and made it available to rigorous study. Three models were tested in this study: Kingdon's Multiple Streams (1995), Lindblom's Bounded-Rationality (Incrementalism) (1959), and Lovell's Three-Tier Taxonomy (2001). This dissertation discloses which model or elements of models State Higher Education Executive Officers and Legislative Education Committee Chairs perceived as accurately reflecting the process used by legislators to produce higher education public policy along major issues of policy (Association of Governing Board, 2002; Education Commission of the States, 2002; Heller, 2001), regional compact (Adelman, 1999; Boland, 2001), and system of governance (Education Commission of the States, 1997). This chapter addresses

the methodology used to test the three models. The chapter starts with reiterating the purpose for the research. Next are descriptions of participants and their selection for the study, the four research questions, the variables in this study, and then an overview of the development of the survey instrument. Within the discussion of the development of the survey instrument is a description of the content analysis, the survey question development, and the reliability and validity procedures with an explanation of the use of a panel of experts and a study group. The final section of this chapter explains the procedures used to collect data from the sample of study participants and their response rates.

Purpose of the Study

This study redressed the shortfall that resulted from incomplete work by policy science pioneers on the testing of frameworks, theories, and models. It also addressed the lack of model testing in current higher education public policy research. **Specifically, this study tested the perceived accuracy of three models of public policymaking as applied to higher education. In addition, this study asserts a hybrid model exists and discusses but does not test it.** The three models tested were Kingdon's Multiple Streams (1995), Lindblom's Bounded-Rationality (Incrementalism) (1959), and Lovell's Three-Tier Taxonomy (2001). Kingdon's model was used because it was a unique extension of Cohen, March, and Olsen's (1972) work on organized anarchies (institutions of higher education) as applied to the organized anarchy of policymaking—it seemed fitting to use the model that applied to both the organized anarchy of

higher education and to the organized anarchy of policymaking in a study of higher education policymaking. Also, this study used Lindblom's model because it was the earliest opposing model to the Rational-Comprehensive model presented by policy science pioneers. Further, this study used Lovell's Three-Tier Taxonomy because it was the most recent and strictly 'higher education' model for producing higher education public policy. Additionally, these three models were selected because of their supporting frameworks. Kingdon's model stems from both the rational comprehensive and bounded rationality frameworks; Lindblom developed the incremental, or bounded rationality framework for the model; and Lovell's model emanates from the rational comprehensive framework.

The literature reported three major public policy issue areas into which most higher education public policy issues can reasonably fall—affordability, access, and accountability (Association of Governing Boards, 2002; Congressional Record, 1990; Education Commission of the States, 2002; Gladieux, Hauptman, & Knapp, 1997; Hannah, 1996; Heller, 2001; McGuiness, 1997; National Conference of State Legislatures, 2002; U.S. Department of Education, 2002;). **Affordability** is the desire of the state to financially support costs for higher education to any qualified person. **Access** is the efforts of a state to ensure equality of attendance opportunities to any qualified person.

Accountability is the states' efforts to ensure higher education properly stewards its resources and responds to the demands of the legislation. In addition, this study used the time frame of 1996-2002 and delineated the states by regional compact. This time frame was used because of the amount of time State Higher

Education Executive Officers and Legislative Education Committee Chairs remain in their positions, the volatile nature of the term of office for elected and appointed officials, and coincidence with the 1996 general elections. The delineation of regional compacts was used because it was a unique demarcation for higher education public policymaking. Other recommended delineations included accreditation (Boland, 2001) and national census districts (Adelman, 1999). However, the regional compacts were used because the demarcation was natural, the regions were specific, state membership was voluntary, membership signaled a desire to use the region as a point of reference, and states had a long history of considering higher education public policy as a regional concern. Finally, higher education systems of governance were reported in the literature as having an effect on the policymaking process. While each state determines its own method for higher education governance, three primary systems are found across all fifty states. These systems of governance include Coordinating Boards, Consolidated Governing Boards, and Planning/Service Agencies.

While these areas of examination (major issue of policy, time-frame, regional compact, and system of higher education governance) were of interest to the researcher, ultimately this study sought to determine the perceived accuracy of the models tested in reflecting the process used by legislators to produce higher education public policy in all fifty states. Survey methodology was selected as the research method for this study. Surveys have been used extensively in policy science research, but the survey method was not selected based solely on this reason. Rather, it was selected because surveys provide an exceptionally useful

way to addressing a multitude of issues in a single instrument with a multitude of viewpoints. A number of data analysis options also exist with survey data and surveys afford an opportunity to study the phenomenon of interest. Finally, ethical limits to policy science preclude other instruments and methodologies such as experimentation (Babbie, 1973, 1990; Capron, 1975; Dillman, 1978, 2000; Hyman, 1951; Likert, 1951; Rivlin & Timpane, 1975; Schelling, 1975; Schultze, 1975). This researcher used surveys to gather information from each of the fifty states through opinions of State Higher Education Executive Officers and the Legislative Education Committee Chairs.

Participants

Four groups of participants were engaged to complete this study. Two groups assisted in survey development (a panel of experts and a study group) and two groups combined (State Higher Education Executive Officers and Legislative Education Committee Chairs) to complete the resulting survey. The panel of experts contained eleven members from the policymaking, stakeholder, and policy science professions. By using eleven members for the panel, a manageable, odd number of critiques were obtained (Babbie, 1973). An odd number is helpful in averting a possible 50-50, split decision. Panel of experts members were selected by the researcher based on their experience in the research or analysis of public policy, their role as senior level administrators in policymaking, their publications, and their recognition as experts in the field (Babbie, 1973; Holsti, 1969; Krippendorff, 1980; Weber, 1985). For example,

one panel member served for six years as the assistant secretary for postsecondary education at the U.S. Department of Education. Of the remaining panel members, one served as the Executive Director of the State Higher Education Executive Officers organization; one member was the Executive Director of one of the four regional compacts; some served with the Education Commission of the States, the National Conference of State Legislators, and/or on State Boards of Education, etc; one member was a former State Higher Education Executive Officer; one member was a former State legislator; and five were university professors.

Study group participants also were included in a pilot study or "miniaturized walkthrough of the entire study from sampling to reporting" that differed "only in scale" (Babbie, 1973, 211) to pre-test the survey. Study group members consisted of 15 former SHEEOs and 20 former state legislators recommended by the dissertation committee and the panel of experts based on their role in higher education policymaking, their publications, and their recognition as experts in the field (Babbie, 1973; Holsti, 1969; Krippendorff, 1980; Weber, 1985). The former SHEEOs were from 13 different states, all 4 regional compacts, and one was the former Executive Director of SHEEO. The former legislators were from 10 different states, 3 regional compacts, 1 non-compact state, and 2 were former LECCs.

To gather information from all the states, fifty State Higher Education Executive Officers (SHEEOs) and ninety-nine Legislative Education Committee Chairs (LECCs) were surveyed (Nebraska was an exception because of its unicameral system and it had only one LECC instead of two). State Higher

Education Executive Officers and Legislative Education Committee Chairs

opinions were sought for two primary reasons related to their status as experts in higher education public policy. First, each state had a State Higher Education Executive Officer and the SHEEOs worked with stakeholders, policymakers, and policy analysts within the higher education community of their states and within the state legislative bodies. Second, each state had a Senate and a House Education Committee Chair that worked with policymakers in producing higher education public policy (again with the noted exception of Nebraska's unicameral system.) Additionally, the State Higher Education Executive Officers and the Legislative education Committee Chairs formed a complete population (Gall, Borg, & Gall, 1996). The Legislative Education Committee Chairs also formed a subpopulation of the population of state legislators.

The Legislative Education Committee Chairs group was selected as a sample because of their understanding of the major policy issue areas of higher education public policy, and their familiarity this policymaking process. While other state legislators may have had familiarity with the higher education public policymaking process, the Legislative Education Committee Chairs were easily identifiable and likely to be the most familiar this process. Using two levels of examination for the instrument—panel of experts and study group—and the combination of the full population of SHEEOs and full population of LECCs as final study participants helped the researcher ensure a robust research design engaging higher education policymaking experts and stakeholders to answer the research questions.

Research Questions

Four research questions framed the collection and analysis of the data for this study. These four research questions sought to discover the relationships that resulted from the assessment of the three models of higher education public policy to determine which model or elements of models State Higher Education Executive Officers and Legislative Education Committee Chairs perceived as accurately reflecting the actions taken in higher education public policymaking. These questions were: (1) Which model or elements of models did State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy? (2) Which model or elements of models did State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along major policy issue areas? (3) Which model or elements of models did State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of regional higher education compacts (Midwestern Higher Education Commission (MHEC), New England Board of Higher Education (NEBHE), Southern Regional Education Board (SREB), and Western Interstate State Commission for Higher Education (WICHE))? (4) Which model or elements of models did State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of systems of

higher education governance (Coordinating Board, Consolidated Governing Board, and Planning/Service Agency)? To fully answer these questions the variables, both dependent and independent, required discovery and description. The next section of this chapter describes the variables created in this study.

Variables

Dependent variables were the measured variables. While “the variables that we start from—that is, accept for this study without wondering what made them what they are—are independent variables” (Backstrom & Hursh-César, 1981, p. 26). The responses to the survey questions formed the dependent variables.

Respondents were asked to report their perception of the extent to which aspects of models accurately reflect the higher education public policymaking process. The dependent variables were formed by aggregating responses over sets of items. Tables and graphs are used to report the compilation of dependent variable scores. For example, the compilation of all the State Higher Education Executive Officers and Legislative Education Committee Chairs responses to all the Affordability questions relative to a model, for example Kingdon’s model, were summed to form the variable “LIAFF.” The model and the major issue (e.g., Lindblom and Affordability) were two of the independent variables.

The independent variables in this study included the model (MOD), the major policy issue area (MIP), the state, the regional compact (RC), and system of higher education governance (HEG). In this section is a discussion of the sub-

categories of the independent variables mentioned; each subcategory was also an independent variable. The three models (MOD) used in this study were Kingdon's Multiple Streams (KI), Lindblom's Incrementalism (LI), and Lovell's Three-Tier Taxonomy (LO). The three major policy issue areas (MIPs) were affordability (AFF), access (ACC), and accountability (ACT). The states were represented by their two-letter postal code. The four regional compacts (RCs) were Midwestern Higher Education Commission (MHEC), New England Board of Higher Education (NEBHE), Southern Regional Education Board (SREB), and Western Interstate State Commission for Higher Education (WICHE). Finally, the three systems of higher education governance (HEGs) were Coordinating Board (CB), Consolidated Governing Board (CGB), and Planning/Service Agencies (P/SA). These were the variables whose effects were tested in this study. With the variables explained, the next section describes the process used to develop and test the survey instrument.

Survey Instrument Development

Describing the process for developing and testing the survey questions (items) and the survey package that allowed for model testing is the task of this section. Starting with an explanation of the content analysis used to examine, categorize, and present the models in the survey to the respondents, this section also describes how the content analysis process supported the basic structure for the wording of the items. After the discussion on content analysis is a description of the process used to assess reliability and validity of the instrument. Reliability

and validity estimation involved data from both a panel of experts and a study group. In assessing the reliability and validity in this manner a more robust instrument resulted. A robust instrument led to more solid answers to the research questions and allowed for broader analysis of the results.

Content Analysis

The content analysis for discovery of the elements of the models relied heavily on the literature review and conversations with the authors. Content analysis is described as a set of techniques used to analyze text with presentations of findings ranging from tabular to more complex statistical and computer analysis (Gall, Borg, & Gall, 1996; Gerbner, Holsti, Krippendorff, Paisley, & Stone, 1969; Holsti, 1969; Krippendorff, 1980; Weber, 1985; Yanow, 2000). Most content analysis involves collecting and examining forms of communication for encoded categories and then making inferences about the coded messages. While content analysis is useful as a study of communication tools, it is also applicable in working to "reveal the focus of individual, group, institution, or societal attention" (Weber, 1985, p. 9). For this study, the content analysis of the three models involved three simple stages: (1) examination, (2) categorization, and (3) presentation.

Examination of the models was a two-step process that included a thorough review of the author's text along with other reports in the literature relating to the model. The first step included a first reading of the model for its salient points. The second step included a review of the model for repeated ideas and themes. For the Lindblom model, this second step examination included a

follow-up journal article by Lindblom (1979) that addressed a great deal of the information presented as supporting the model. This article by Lindblom was instrumental in deciphering which points in the model were salient. Kingdon's model (1995) expanded on Cohen, March, and Olsen's (1972) work. Therefore, Cohen, March, and Olsen's research was an important part of the content analysis and review for salient points and themes. Lovell's model (2001) required a review of the presentation at the Public Policy Pre-conference for the Annual Association for the Study of Higher Education meeting in Sacramento, CA (2001). In addition, an interview with and review of materials presented in Lovell's classes helped illuminate the salient points and themes. Once an understanding of the salient points and themes congealed, the categorization began.

Categorization followed a two-step process similar to that of the examination stage. First, the categories were listed and then they were compared with the models. The comparison was aided by the thematic presentation of the models by the authors in their written work as well as discussions with the authors. Kingdon (1995) reported three streams (problems, policies, and politics) that "couple" in a "policy window." Kingdon further categorized the problems and politics streams into three parts each. The "Problems Stream" contained indicators, dramatic events, and feedback while the "Politics Stream" concerned itself with mood, interest groups, and policymaker turnover. According to Kingdon (2002), the four elements presented in this dissertation (problems,

policies, politics, and coupling) were a complete representation of the model (Appendix A).

Lindblom (1959) described “Muddling Through” as the most accurate depiction of the policymaking process. Lindblom listed five characteristics of the process: intertwined values, no means-ends analysis, test for ‘good’ policy as ambiguous, limited analysis, and reduced or eliminated reliance on theory. Lindblom (2002) recognized the value of combining *no means-ends analysis* with *test for ‘good’ policy as ambiguous*. Therefore, in this study they were treated as one element of the model leaving four elements. According to a conversation with Lindblom (2002), the four elements presented in this dissertation were a complete representation of the model (Appendix B).

Lovell (2001) described the procedures for good higher education public policy as a three-tier process that included: inviting/including the stakeholders in the policy discussions, congruence between stakeholder and policymaker values, and appropriate levels of administration or management (avoidance of micromanagement—empowerment). Lovell’s first two tiers addressed the process of identifying problems and developing solutions and the third tier addressed implementation of the policy without micromanagement. According to a conversation with Lovell (2002), the three elements presented in this dissertation were a complete representation of the model (Appendix C).

Next, key words from the categories were identified and drawn out for future use in the item development. The remaining task was to code the elements. Each element had a model identifier (KI-Kingdon; LI-Lindblom; LO-Lovell), a

numeric, and a short title for the element. For example, Lovell's second element that dealt with congruence between stakeholder and policymaker values in the identification of problems or alternatives for solutions appeared as "Stakeholder values (LO2)." Once the categorization and coding was complete, the final step was to present the findings of the content analysis. The results were reported in an integrated table (Table 1) that became the Table of Specifications for survey construction. The Table of Specifications lists the author of each model and the element of each model. Likewise, the table lists the three major issues of higher education public policy.

Table 1

Table of Specifications

<u>Author</u>	<u>Elements (Element Code)</u>	<u>MAJOR POLICY ISSUE</u>		
		<u>Affordability</u>	<u>Access</u>	<u>Accountability</u>
Kingdon	Problems (KI1)	2	2	2
	Policies (KI2)	2	2	2
	Politics (KI3)	2	2	2
	Coupling (KI4)	2	2	2
		8	8	8
Lindblom	Intertwining (LI1)	2	2	2
	No means-ends analysis and "Good" policy test (LI2)	2	2	2
	Limited analysis (LI3)	2	2	2
	No theory reliance (LI4)	2	2	2
		8	8	8
Lovell	Involve Stakeholders (LO1)	2	2	2
	Stakeholder values (LO2)	2	2	2
	Administration/Management (LO3)	2	2	2
		6	6	6
Total		22	22	22

Along with these descriptives in the table is a listing of the number of questions per element, model, and major issue required. From this Table of Specifications the researcher began to write the survey questions.

Survey Questions

The items (survey questions) appeared in the form of a statement combining one element of a model with one major issue of policy using a six-

point response scale. The scale was as follows: "Never" = 1, "Infrequently" = 2, "Occasionally" = 3, "Regularly" = 4, "Frequently" = 5, and "Always" = 6 (Babbie, 2002; Likert, 1951). The survey contained sixty-six items that specifically addressed the perceived accuracy of the models, twenty-four for the Kingdon model (items 1-8, 23-30, and 45-52), twenty-four for the Lindblom model (items 9-16, 31-38, and 53-60), and eighteen for the Lovell model (items 17-22, 39-44, and 61-66). The Kingdon and Lindblom models each had eight items for each of the major policy issue areas while the Lovell model had six items; each major policy issue area had twenty-two items as Table 1 presents. Therefore, the results of the content analysis of the models formed the structure for the survey questions. For example, examining Lovell's Three-Tier Taxonomy, under the first element of involving stakeholders in the affordability issue, the question read:

	Always				Never	
Legislators included stakeholders to help identify financial support problems	6	5	4	3	2	1

Items were produced combining models and issues until all 66 items were completed. While the items initially appeared on the instrument grouped by model and then by major issue of policy, in the final version of the survey the items were grouped first by major issue of policy and then by the model they represented. The grouping helped reduce the appearance of a "chaotic and worthless" (Babbie, 1990, p. 141) survey. It also brought a sense of order and

discipline to the instrument, and alleviated the need for respondents to "... shift their attention from one topic [major issue of policy] to another" (Babbie, 1990, p. 141). Preceding each grouping was an introduction to help break the groups apart. This provided the respondents with an opportunity to switch their attention from the first policy issue to the second and then the third without having to go back and forth between major issues of policy. This breaking apart of questions may also have imposed an effect of grouping. Along with the effect of grouping, responses may have been affected by primacy, or the possible lessened reliability of the last questions based on fading respondent attention. The effect of primacy was a possible limitation (Babbie, 1990; Backstrom & Hursh-César, 1981), but not of significant concern for this study.

Survey Package

In addition to the instrument, the survey package included a cover letter, directions, consent form, and a stamped return addressed envelope (Babbie, 1990; Dillman, 2000; Likert, 1951). The cover letter introduced the researcher, described the intent of the study, and explained the contents of the package. The directions let the respondent know the number of items (sixty-six plus five demographic questions), the anticipated amount of time required to complete the survey (about ten minutes), the response scale (six-point), the groupings of questions, that respondents ought to focus on state legislators in the higher education public policymaking process, and the time-frame of six years (1996-2002) for legislation under consideration. The directions drew respondents' attention to the consent form and also asked them to use the stamped return envelope when finished with

their survey. The consent form advised the respondents of the possible harm (negligible to none) associated with participating. The package followed the guidelines of Total Design Methodology espoused in the literature (Dillman, 2000) to reduce non-response rates and enhance reliability and validity (Babbie, 1990; Holsti, 1969; Krippendorff, 1980; Weber, 1985). Reliability and validity estimations put to use both a panel of experts and a study group for the content analysis and the survey instrument. The use of both the panel of experts and the study group in assessing reliability and validity are the next topics in this section.

Reliability

Reliability is defined as whether a particular technique applied repeatedly to the same object yields the same result each time (Babbie, 1990). Reliability in this study was the extent to which the data collected represented real incidents “rather than the extraneous circumstances of measurement, the hidden idiosyncrasies of individual analysts, and surreptitious biases of a procedure” (Krippendorff, 1980, p. 129). For content analysis, reliability depends on two areas: individual reliability and category reliability. For instrument reliability, four quantitative, statistical methods are used: inter-rater reliability, test-retest reliability, alternate-form reliability, and internal consistency

Content Analysis Reliability. Within the area of content analysis, two overarching areas of reliability were crucial to address. These two areas were individual reliability and category reliability. Individual reliability refers to the agreement between coders, between the individuals conducting the content analysis (Holsti, 1969; Weber, 1985). Category reliability depends on the ability

of the researcher to establish proper categories. The literature reveals three distinct types of individual and category reliability: stability, reproducibility, and accuracy.

Stability is an assessment of the variability in the process of coding and categorizing. For this study, only one researcher conducted the coding and so stability could not be assessed. "Reproducibility is the degree to which a process can be recreated under varying circumstances, at different locations, using different coders" (Krippendorff, 1980, p. 131). Again, because this study used only one coder, reproducibility could not be assessed. A stronger measure of reliability in content analysis was accuracy. "Accuracy is the degree to which a process functionally conforms to a known standard, or yields what it is designed to yield" (Krippendorff, 1980, p. 131). The known standard, or norm, was an accepted standard used by the experts in the field and born out by repeated research efforts that failed to disprove the norm, or *known standard* (Krippendorff, 1980; Weber, 1985). Along with experts, the literature also helped establish the norm. The reliability of the content analysis in this study was enhanced by the dissertation committee, the panel of experts, and the authors of the models in assessing accuracy. If the elements did not accurately reflect the models, the data (survey responses) would not accurately describe the process used by legislators to produce higher education public policy.

Panel of Experts. To ensure the elements accurately reflected the models, a panel of experts reviewed the preliminary survey. Panel of experts' comments on the instrument were favorable with seven major suggestions for improvement.

The first five were directly related to improving the accuracy of the items and support information for the items and the final two were related to the clarity of the instrument directions. First, the panel of experts recommended a more explicit statement of purpose in the cover letter for clarity. The cover letter was re-written to read "At its heart, this is a study of two issues: 1) do the selected models reflect real behavior by legislators and 2) do legislators' behave differently from one issue of higher education public policy to another issue." Second, a clearer delineation between the terms "legislators" and "policymakers" was required in the directions, which the researcher accomplished. Third, the term "steward" was thought to confuse and was changed to "oversees" in the definition of the term accountability. Fourth, the panel of experts recommended re-grouping the items first by major issue of policy and then by model. This recommendation was made to streamline the instrument and reduce the amount of jumping between models. Since the respondent did not need to know which question corresponded to which model, placing the items by major policy issue allowed the respondents to concentrate on a single policy issue at a time. Also, the analysis compared model and issue so the location of an item on the survey was moot but the flow for the respondent was very important (Babbie, 1990; Backstrom & Hursh-César, 1981; Dillman, 1978, 2000; Likert, 1951). Fifth, the panel of experts recommended placing a statement prior to each section reminding the respondent to consider a specific piece of legislation from the 1996-2002 time-frame in answering the questions. Sixth, the directions were considered too long. These were shortened. Finally, the wording on the Consent

Form was thought to be too lengthy so the length was reduced. With these changes made, the survey was sent to the pilot sample for assessment of instrument reliability. This section on reliability continues with a discussion of ways used to assess instrument reliability, concluding with both the pilot study and final study internal consistency reliability estimates.

Instrument Reliability. Possible ways in which the reliability of the instrument could have been assessed depended on measures of inter-rater reliability, test-retest reliability, alternative-form reliability, and internal consistency. The first three involve multiple surveys, multiple administrations of the survey, or observations of behaviors, none of which apply to this study. Thus, the final way to assess instrument reliability, internal consistency reliability, was used in this study. Internal consistency reliability is affected by the length of the survey and the time allotted for taking the survey. To ensure complete coverage of the three major issues of higher education public policy across each of the elements of the models a minimum of thirty-three questions was necessary. However, this generated a situation where one item serves as the sole marker for comparison. By doubling the number of items, the reliability increased without creating an overly burdensome survey (Babbie, 1990; Dillman, 2000; Green 2001; Likert, 1951). In addition, by segregating the survey into groupings the respondent had a better flowing survey to take. This translated to a reduction in time required to complete the survey. Finally, by asking the panel of experts and the pilot group "Does the survey flow well?" the researcher was able to modify the instrument as required.

Internal Consistency Reliability. Internal consistency estimates were calculated for the 66 items on the survey and for the items within each of the three models. Internal consistency testing began with item analysis on the study group responses and then on the final study (Aiken, 1996; DeVellis, 1991; Nunnally, 1967; Osterlind, 1998). Item analysis obtained item-total statistics to include the reliability coefficients, scale mean if item deleted, scale variance if item deleted, corrected item-total correlations, alpha if each item were deleted, and Cronbach's alpha (Denton-Hall, 1999). "[Cronbach's] alpha measures the extent to which item responses obtained at the same time correlate highly with each other" (available from <http://www2.chass.ncsu.edu/garson/pa765/standard.htm#alpha>). In other words, the use of Cronbach's alpha helped assess the internal consistency of a set of items that constituted a model with a higher Cronbach's alpha signaling higher internal reliability. Using Cronbach's alpha of at least .5 (Cronbach & Snow, 1977) to check the internal consistency of the questions, with a non-standardized alpha, worked best for ensuring reliability of the questions for both the pilot and final study. Items with an *alpha if item deleted* significantly greater than the model alpha, or Cronbach's alpha, were considered as failing the item analysis (Green, 2001). The researcher set item failure parameters such that items that failed the item analysis during pilot testing were to be rewritten, submitted to the panel of experts for review, and placed into the final survey. Item failure parameters for the final study were set by the researcher such that items that failed the item analysis were considered for removal from the analysis. No items failed during pilot testing or during the final study item analysis.

Surveys were sent to the study group on 5 August 2002. Following data entry of the study group responses, internal consistency was estimated through item analysis. Table 2 displays the outcome of the item analysis on the study group responses, listing the Cronbach's alpha overall for the study group responses and then the Cronbach's alpha for each model. The final column lists items identified for possible removal with alpha if that item were deleted in parentheses.

Table 2

<i>Study Group Cronbach's Alpha and Items Identified for Possible Deletion</i>		
	Cronbach's Alpha	Items Identified
Overall	.94	
Kingdon	.92	
Lindblom	.81	16 (.82) 60 (.82)
Lovell	.90	

Cronbach's alpha for each model and the instrument overall were above .7 and considered high (Cronbach & Snow, 1977) signaling adequate internal consistency reliability on the study group instrument. The researcher decided not to remove the two items identified in Lindblom's model for possible exclusion. All sixty-six items were retained for the final survey because the alphas were already high and the improvement gained would be minimal.

The Cronbach's alpha for the instrument overall in the final study was calculated to be .93. Like the study group, this calculation was considered

exceptionally high (Cronbach & Snow, 1977) and likewise signaled high internal consistency reliability of the instrument. Table 3 displays the Cronbach's alpha for each of the three models tested and overall for the final study instrument. The last column of Table 3 displays items identified for possible deletion by item number with alpha if the item were deleted in parentheses.

Table 3

<i>Final Study Cronbach's Alpha and Items Identified for Possible Deletion</i>		
	Cronbach's Alpha	Items Identified
Overall	.93	
Kingdon	.87	
Lindblom	.74	58 (.75) 60 (.79)
Lovell	.94	

It was decided not to remove the two items identified in Lindblom's model for possible exclusion in the final analysis. All sixty-six items were retained because the alphas were already high and the increase in alpha was not considered sufficiently large to justify item deletion and the subsequent narrowing of the construct. The instrument was found to be internally consistent (Babbie, 1990; 2000; Cronbach & Snow, 1977, Dillman, 1978, 2000; Green, 2001). These were the last assessments of reliability on the pilot and final study for both the content analysis and the instrument. With reliability assessed, validity was addressed next in the methodology of the study.

Validity

Validity is the extent to which an empirical measure adequately reflects the *real meaning* of the concept under consideration (Babbie, 1990). For this survey, validity was the assertion that there exists a correspondence between the model and the actuality the model represents—that the models actually did represent the concrete process of policymaking (Babbie, 1990; Gall, Borg, & Gall, 1996; Krippendorff, 1980; Weber, 1985). Validity testing for this study relied on the validity of the content analysis as well as validity of the instrument. The literature distinguishes four major methods to validate content analyses: semantic or content validity, correlational or concurrent validity, construct validity, and predictive validity. To validate the instrument, the literature distinguishes four major methods: construct validity, face validity, content validity, and criterion-related validity which includes concurrent and predictive validity. The following section describes the four major methods to conduct validation of content analysis and then the four major methods to conduct validation of the instrument.

Content Analysis Validity. Of the four methods, correlational and predictive validity were not used in this study. Semantic and construct validity played an important role in supporting the validity of the content analysis. “Semantic validity assesses the degree to which a method is sensitive to the symbolic meanings that are relevant within a given context...semantic validity is rarely a problem in research in which the data gathering process is structured” (Krippendorff, 1980, p. 157). Semantic validity of the content analysis developed

agreement on "signs" (Krippendorff, 1980, p. 161) or terminology. The literature review, as a structured process, helped ensure semantic validity. The literature review conducted by the researcher ensured semantic validity by assessing and confirming the use of the same terminology across the field when discussing a model. In addition, the review of the models by the panel of experts contributed to the assessment of semantic validity. The semantic validity supported the construct validity by providing agreed upon terminology or "signs," for use in constructing the codes and categories.

Construct validity for the content analysis concerned itself with the construction of the codes and categories as accurate measures of the categories they intended to represent. Construct validity was an attempt to ensure an accurate generalization of communications content into elements (Krippendorff, 1980). In this study, the elements were generalized from the three models used and presented in the Table of Specifications. For example, Lindblom described the incremental approach to policymaking as creating a situation that greatly reduces or eliminates reliance on theory. Therefore, one of the elements of the Lindblom model was a lack of reliance on theory. In the Table of Specifications, this element is noted as "No theory reliance (L-4)." The elements of each model were listed in the Table of Specifications and were the full set of major elements of the models for construct validity to exist. A review by the dissertation committee, a review of the literature on the models, and discussions with the authors of the models helped ensure construct validity.

Content analysis validity assessments used in this study were supported by the literature which repeatedly described the elements of these models. In addition, the authors of the models presented the elements of the models thematically in their work. The concurrence of the authors' written and verbal descriptions of the elements described in the literature, along with the review of the elements by the panel of experts, ensured both the semantic and construct validity of the content analysis validity assessment. Therefore, semantic validity combined with construct validity in the content analysis of these three models presented the elements of models in a realistic way and as indisputable facts (Krippendorff, 1980). With valid elements of the model, the construction of an instrument could proceed and likewise the assessment of the validity of the instrument.

Instrument Validity. In this study, face validity was supported by inspection of the content of the instrument as representative of the elements in the models in a language understandable by both researchers and practitioners (Gall, Borg, & Gall, 1996). The questions asked to determine face validity were, "Do the items on the instrument appear to represent the elements of the models" and "Do they seem understandable?" The dissertation committee addressed face validity by reviewing the Table of Specifications and the survey instrument. Face validity, as one method, was not as sophisticated as content validity.

Content validity was determined systematically by content experts (Chase, 1978; Gall, Borg, & Gall, 1996). "A test does not need to cover all the content to be content valid, but it must cover a representative sample of the content domain"

(Gall, Borg, & Gall, 1996, p. 250). The dissertation committee served as the first check for content validity by reviewing the instrument and the Table of Specifications. The panel of experts served as the second check for content validity because they were composed of "content experts" (Gall, Borg, & Gall, 1996, p. 250) with a combination of practical and research experience in the making of public policy. The panel of experts' familiarity with the content of the models and familiarity with the content of the policymaking procedures made them an invaluable asset to the content validity check. The content experts reviewed the instrument using five questions as their guide: (1) Are any of the items vague? Which items? (2) Are any of the items difficult to understand? Which items? (3) Does the survey flow well? (4) Are all major elements of the models referenced? and (5) Do you have any suggestions for improvement? By reviewing and commenting on the instrument and by responding to the questions about items being vague or difficult to understand, the content experts helped support content validity. Likewise, the use of a study group along with their comments helped to refine the instrument. Using a study group helped to ensure the wording of the items were neither vague nor difficult to understand.

Another method of addressing validity was construct validity. Construct validity is an assessment of the measurement of the construct (Gall, Borg, & Gall, 1994). The construct in this study was the perceived accuracy of models of higher education public policymaking. It is important to remember that "no single item of evidence is sufficient to establish construct validity. Multiple types of evidence are needed to strengthen the case that a test measures the construct

claimed" (Gall, Borg, & Gall, 1994, p. 250). Face validity and construct validity were the primary means of assessing the instrument validity for this study, and both pointed to a valid instrument. Coupled with the positive validity assessment of the content analysis and the favorable reliability assessments of both content analysis and instrument reliability, the items individually and the instrument overall were considered a robust, reliable, and valid method for determining whether or not the models accurately describe the behavior of legislators in higher education public policymaking. Next is a description of how this instrument was used to gather the opinions of the State Higher Education Executive Officers and the Legislative Education Committee Chairs.

Procedures

This section details the procedures taken to collect data from the respondents concluding with the response rates for the data collection procedures.

Data Collection Procedure

Each of the State Higher Education Executive Officers and Legislative Education Committee Chairs were sent the survey package by mail (postal and electronic) and by facsimile as required. The procedure for the final study was a repeat of the procedure used for the study group. The survey package contained a cover letter from the researcher, a consent form, instructions, a stamped return envelop, and the survey. Respondents were asked to answer the survey questions and return the survey in the self-addressed stamped envelope provided. Contact

was conducted in waves. Once received, data were input. The analysis began, using SPSS 10.0 for Windows[®] and Excel[®], when all survey data were entered,

A master list with each of the respondents' important information, to include mailing and Internet address, was used to help track the surveys. In addition, each survey had a code to identify the regional compact and system of higher education governance (Babbie, 1990; Christenson, 1975; Dillman, 2000; Likert, 1951; Sosdian & Sharp, 1980). Immediately upon receipt of the completed survey, the researcher crosschecked the survey master list, reverifying the regional compact and system of governance codes, and entered the responses into a database for verification and analysis. A second verification occurred on the next day by comparing the coded survey once again with the master list, and the responses on the survey with the database. Errors noted were corrected immediately. Follow-up surveys were sent with a goal response rate of 60% (Babbie, 1990; Christenson, 1975; Dillman, 2000; Sosdian & Sharp, 1980).

Contact with final study respondents was timed differently for the SHEEOs and the LECCs due to schedule constraints. Original plans to contact LECCs in fall did not materialize. LECCs were contacted at the end of 2002 and again at the beginning of 2003, when legislative sessions began, through April 2003 when a number of sessions concluded. Contact with SHEEOs began in October 2002 by postal mail with follow-up contact by e-mail; all SHEEOs had e-mail addresses. Surveys were mailed to the respondents starting October 12, 2002 with all SHEEOs using e-mail follow-on notifications, and pre-contact with the LECCs on January 7, 2003 using post card and e-mail follow-on notification. SHEEOs were

contacted in five waves, the first by postal mailing of the survey and the remaining four waves by e-mail. LECCs were contacted in nine waves, the first by pre-contact post card, the second by postal mailing of the survey, the third by post card reminder, and the next five waves by e-mail, and the final wave by telephone.

Response Rates

Contact with the study group began on August 5, 2002. Response rates for the former SHEEOs were 77% (10/13), and for the former LECCs was 55% (11/20) with an overall response rate of 70%. Based on the desired outcome of 60% response rate overall, a goal of ninety survey responses (thirty-five SHEEO and fifty-five LECC) was established by the researcher (Babbie, 1990; Christenson, 1975; Dillman, 2000; Sosdian & Sharp, 1980). Two of the SHEEO offices were vacant during the time of the study, reducing the population from fifty to forty-eight. Of the ninety-nine LECC surveys, seventeen were non-deliverable. These seventeen LECC surveys were sent back marked RETURN TO SENDER. After comparing the address and legislator's name against the database used as well as with the internet website no additional address was discovered. These seventeen surveys were then considered non-deliverable. The non-deliverables reduced the LECC population from ninety-nine to eighty-two. Additionally, nine LECCs requested removal from the research database and four LECCs reported that it is their policy not to participate in surveys. These thirteen LECCs were marked as refusals/returns but were not subtracted from the population for LECCs. Based on the SHEEOs not in office and the LECC non-

deliverables, the overall sample size for the study went from 149 to 130. The response rates for the SHEEOs were 71% (34/48), and for the LECCs was 50% (41/82) with an overall response rate of 58%. Response rates were in line with the research on response rates (Babbie, 1990; Christenson, 1975; Dillman, 2000; Goyder, 1986; Heberlein & Baumgartner, 1978, 1981; James & Bolstein, 1990; Linsky, 1975; Lundberg & Larsen, 1949; Parasuraman, 1982; Paxson, 1992; Sosdian & Sharp, 1980) and on the Total Design Methodology espoused by Dillman (1978, 2000). Additionally, the researcher discovered that the response rate from the study group was a good predictor of the response rate for the final respondent group. Information on final study response rates is shown in Table 4:

Table 4

Response Rates to Final Survey

	<u>SENT</u>	<u>NON- DELIVERABLE</u>	<u>REFUSALS/ RETURNS</u>	<u>NO RESPONSE</u>	<u>RESPONSE</u>	<u>RATE</u>
SHEEO	50	2	0	14	34	70.83%
LECC	99	17	13	28	41	50.00%
TOTAL	149	19	10	47	73	57.69%

As mentioned earlier, contact attempts were conducted in waves (Babbie, 1990; Christenson, 1975; Dillman, 2000; Likert, 1951; Sosdian & Sharp, 1980).

Table 5

Response Rates by Wave

Wave	Date	Rcvd	Non-deliv	% Rtrn Wave	N	% Rtrn Cum	Ref/ Rtrn
S-1 ¹	Oct 12, 02	12		24.00%		24.00%	
S-2 ³	Nov 4, 02	7		18.42%		38.00%	
S-3 ¹	Dec 2, 02	6		19.35%		50.00%	
S-4 ¹	Dec 20, 02	4		16.00%		58.00%	
S-5 ¹	Jan 6, 03	5		16.13%		68.00%	
TOTAL		34	2		50	70.83%	
L-1 ^{3,4}	Jan 7, 03	0	11	0.00%		0.00%	
L-2 ¹	Jan 17, 03	17	6	20.73%		20.73%	
L-3 ⁴	Jan 29, 03	5	0	7.69%		26.83%	
L-4 ⁵	Feb 11, 03	7	0	11.67%		35.37%	4
L-5 ⁵	Feb 26, 03	5	0	9.43%		41.46%	2
L-6 ⁵	Mar 13, 03	4	0	8.33%		46.34%	
L-7 ⁵	Mar 20, 03	1	0	2.27%		47.56%	3
L-8 ⁶	Mar 28, 03	0	0	0.00%		47.56%	1
L-9 ⁶	Apr 15, 03	2	0	4.65%		50.00%	3
TOTAL		41	17			50.00%	11
TOTAL		75	19			57.69%	

Notes: 1 – Postal mail. 2 – E-mail. 3 – Pre-contact. 4 – Post card. 5 – E-mail. 6 – Telephone

Table 5 reports the five SHEEO waves (S1-S5) of contact and the nine LECC waves (L1-L9) of contact. Summarized, the five waves of contact with the SHEEOs elicited a cumulative response rate of 69%; the nine waves of contact with the LECCs elicited a cumulative response rate of 50% and an overall study response rate of 57.69% . These response rates mirrored the study group response rates for the former SHEEOs of 77% (10/13), and for the former LECCs of 55% (11/20) with an overall response rate of 70%. The final study SHEEO and LECC response rates met the desired outcome, while the final study overall response rate was two percentage points shy of the goal of 60%. Two more surveys were received after the L9 wave but were incomplete and therefore unusable. It was determined that these final study responses provided a sufficient number of surveys to begin data analysis, the subject of the next chapter in this study.

Data Analysis Procedures

Data analysis was conducted through descriptive statistics using graphs and tables, and through analysis of variance. Charts, graphs, and tables reported the responses to survey items from SHEEOs and LECCs grouped by model, models along lines of major issue of policy, models along lines of regional compact, and models along lines of higher education systems of governance. Elements of the models were also reported in a table and a graph. Assumptions for the analysis of variance were tested prior to conducting analysis and were reported along with the ANOVA tables. Additionally, in taking on the challenge to conduct rigorous, quantitative, empirical testing of these three models, this study reports the perceived accuracy of a model through its mean score. This

study must also define a threshold value for when a model is perceived as accurate; it must select a score above which a model is said to have perceived accuracy and below which a model is said to **not** have perceived accuracy. **The demarcation value for perceived accuracy, as the results of the data analysis must support, should indicate that it is likely to observe a reasonable frequency of legislative behavior with a regularity of pattern for the model to have perceived observable accuracy.**

For models of human behavior to be accurate and useable, they must maintain a sense of balance between extremes of rigidity and flexibility, specificity and generalizability, and the abstract and vague with the concrete and understandable. As the literature describes, models help clarify the policymaking process and make it available to rigorous study; they categorize the myriad issues into a manageable set. Some systems are too complex to study directly and researchers use models to represent the salient aspects of a system (Anderson, 1990; Ashbury, 1970; Morris, 1967). Models are also convenient representations of reality (Anderson, 1975; Birkland, 2001; etc.). The effectiveness of a model stems directly from the accuracy of its depiction.

Models should not account fully for all of the subtleties of a complex system. This idea runs counter to the concept of a model as a representation of the system. The model as a representation of the system aids in research by not being or becoming a cumbersome, unwieldy product with too much description and specificity and not enough generalizability. It is a delicate balancing act between specificity and generalizability. For this study, the balancing act requires

selection of a 'number' to use as a separator between a model being perceived as accurate or not accurate. This study relied on the perceptions of a panel of experts and a pilot group in instrument development and a final study group of respondents to answer the questions of perceived model accuracy through frequency of observed behavior. It is their perceptions this study reports. It must therefore rely on their perceptions to determine whether or not a model sufficiently accounts for the behavior of legislators to a level of perceived accuracy that is useable.

The responses gathered through instrument development and final study came from a group of higher education public policy professionals who possessed an abundance of firsthand experience and who have dealt directly with policymakers. Also, the respondents had a breadth of knowledge that allowed them to detect the subtleties and nuances of the models as well as the perceived accuracy of the application of the models through observed frequency of behavior. These respondents likewise were honest and thorough in their responses as the tests of the instruments and their results already detailed. This breadth of knowledge, depth of higher education public policymaking understanding, honesty, and due consideration leads to the conclusion that when a respondent reports their perceived observation on frequency of behavior as described by a model, it could be said to be an indication of perceived accuracy of a model in reality. To better understand this concept, the next paragraph discusses the meaning of the term model.

For this study, and as alluded to in the survey, the term “model” is understood to mean an analogous representation of a *thing*. The *thing* being higher education public policymaking for this study. The meaning of the term model does not mean *ideal*, as in the statement, “This is the model policy.” It is a policy; that is accurate enough. However, it is also the ideal (or perfect) policy. In this study, the models were *analogous* to the system of higher education public policymaking and not perfected *ideals* of policy. Recognizing the human endeavors associated with policymaking and higher education, this researcher sought a value that reflected an *adequate* description of the process, and a value that was likewise plausible. What remains is to select a score value for perceived accuracy.

For this study, a score above 4 (which corresponds to the response “Regularly”) was considered as the demarcation for accuracy. This value was selected for several reasons. First, the very nature of this study deals with human behavior. Models of human behavior cannot be perfect representations because human beings are not perfect. Therefore, a value of 6 was not selected. Second, the structure of the responses was not binomial. The questions did not ask, “Is this an accurate portrayal of legislative behavior?” Instead, the Likert response scale was used to allow for the variation of responses the literature reported might occur. A response of 1 corresponds to “Never” observing the behavior. A score above 1 as a measure of accuracy is not reasonable for this study because it does not differentiate sufficiently. While a value of 1 is not reasonable, nor is a value

of 2 or higher, where a 2 indicates an "Infrequently" observed behavior. What remains are the values of 3, 4 and 5.

A value of 3 (which corresponds to a response of "Occasionally") shows the model does have a partial association, but is perhaps insufficient. It is insufficient because it does not indicate that it is likely to observe a reasonable frequency of legislative behavior with a regularity of pattern. The behavior is only occasionally observed. This is not a reasonable indication of accuracy. The value of 5 (which corresponds to the response "Frequently") shows a stronger association and would be more accurate than a value that is partially accurate, such as 3. A value of 5 is an excellent candidate for the differentiating value of accuracy in this test of models. However, a value of 5 is a liberal measure of accuracy in perceived observations, and would not provide sufficient discrimination. A "Regularly" observed behavior is indicated by a response of 4. It is a conservative measure of accuracy and should indicate that it is likely to observe a reasonable frequency of legislative behavior with regularity. Therefore, both deductively and inductively, the value of 4 as the marker for accuracy is plausible, especially for this study. **The demarcation value of 4 for perceived accuracy should indicate that it is likely to observe a reasonable frequency of legislative behavior with a regularity of pattern.** A model with a mean score of 4 or higher is considered as *perceived to be accurate* for this study.

Summary

Behavior of legislators in higher education policymaking is difficult to model accurately and the work of policy science pioneers in testing models for their accuracy is incomplete. This study examined the perceived accuracy of three models in reflecting the behavior of state legislators in the higher education public policymaking process. Survey responses from State Higher Education Executive Officers and the state Legislative Education Committee Chairpersons were used. A survey with items carefully constructed from the models was used since it was, and remains, unreasonable to assume policymakers have sufficient familiarity with all the models of the policymaking process to unequivocally state which model accurately reflects the policymaking process (Adelman, 1999; Association of Governing Boards, 2002; Boland, 2001; Education Commission of the States, 1997, 2002; Heller, 2001; National Conference on State Legislators, 2002). The sixty-six items used in the survey instrument for this study were carefully constructed and their reliability and validity were assessed individually and as a group. Survey content reviews were the dissertation committee, a panel of experts, and study group members. In this manner, the responses from the members of these groups helped ensure the questions (items) in the survey (instrument) most accurately reflected the situation described by the model. It did so in a language that was likely to be familiar to the respondents and with the meaning the researcher intended across the sample of State Higher Education Executive Officers and state Legislative Education Committee Chairpersons. Also, the results of these assessments supported the idea that the items and the

instrument as a whole were reliable and valid. A value of 4 was selected as the demarcation for perceived accuracy; a model with a mean score above 4 is said to have perceived accuracy, a model with a mean score below 4 is said to **not** have perceived accuracy. With this demarcation in mind, the data were analyzed in preparation for answering the research questions. The results, conclusion, and analysis of the answers to the research questions are presented in the next chapter.

CHAPTER FOUR

RESULTS AND DISCUSSION

It is important to note that this study was a redress of the shortfall that resulted from incomplete work by policy science pioneers on the testing of frameworks, theories, and models. The study specifically addressed the lack of model testing in current higher education public policy research. **This study tested the perceived accuracy of three models of public policymaking as applied to higher education and the three major issues of higher education public policy.** This chapter starts with a discussion of the purpose for this study, then reports the results of the data and discusses the meaning of these results through analysis of the data and interpretation. After the section on purpose, the results section describes the outcome of item analysis and presents the results of data analysis in tables and graphs. Ultimately, this section reports how the models were perceived overall, by major issues of policy area (affordability, access, and accountability), by regional compact (MHEC, NEBHE, SREB, and WICHE) and by system of governance (CB, CGB, P/SA). Along with the tables and graphs are the results of analysis of the variances discovered, stating whether or not the differences are statistically significant. The mean scores reported in this section are the perceived frequency of behavior of legislators in higher education public policymaking as observed and reported by the respondents.

Therefore, the perceived accuracy of models is reflected by the mean score where a higher mean score indicates a model that is perceived by the respondents as more accurate. In the following section of this chapter is a discussion of what the data suggest. The discussion includes interpretations of results, answers the research questions, and details how the literature supports or does not support those answers. The analysis of the perceived accuracy of models is discussed in detail in the discussion and analysis section. The discussion section concludes with a focus on the results of the analysis, how the results stand-up under investigation and in relation to the literature, and what the results mean to this study and the field of higher education public policy research. Finally, this chapter finishes with a conclusion section that wraps-up all the results, discussions, and analysis.

Purpose of the Study

This dissertation tested the perceived accuracy of three models of public policymaking as applied to higher education and the three major issues of higher education public policy. At its heart, this study asked respondents (SHEEOs and LECCs) if the selected models matched their perceived observed behavior of legislators in higher education public policymaking and sought to discover if variations in environment affected the models. This study did not support or oppose any of the models, or parts of the models—it was not designed to test a hypothesis about the models. The study was designed to help analysts understand

the perceived accuracy of the models they use to provide advice to legislators and to advance knowledge into higher education public policymaking model testing.

The three models tested in this dissertation were Kingdon's Multiple Streams (1995), Lindblom's Bounded-Rationality (Incrementalism) (1959), and Lovell's Three-Tier Taxonomy (2001). The three major issues of higher education public policy were affordability, access, and accountability. In addition, this study used the time frame of 1996-2002 and delineated the states by regional compact. The framework for the collection, presentation, and analysis of the data responded to the four research questions: (1) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy? (2) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along major policy issue areas? (3) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of regional higher education compacts (MHEC, NEBHE, SREB, or WICHE)? (4) Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of systems of higher education governance (Consolidated Governing Board, Coordinating

Board, Planning/Service Agency)? A survey was used to elicit the opinions of each of the fifty State Higher Education Executive Officers (SHEEOs) and the ninety-nine State House and State Senate Legislative Education Committee Chairs (LECCs). What follows is a discussion of the results of the data analysis on the data collected through the survey.

Results

This section uses graphs and tables to report the results of the data analysis—the perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the respondents. The data are also referred to as perceived accuracy of the model. Perceived accuracy is the overall aggregate mean score calculated for a given model. Further calculations were made along lines of major issue of policy, regional compact, and system of governance by the respondents as a whole (Overall) or as members of their specific group (SHEEO or LECC). For a given description, the higher the mean score, the higher the perceived accuracy for that description. In certain circumstances, some statistics were not calculated due to a small sample size for that subgroup. Specifically, the tests of model along lines of regional compact by individual respondent (SHEEO or LECC) and model along lines of systems of governance by individual respondent were not conducted due to small sample size.

The following graphs detail the frequency of responses to items by model and across all three models which are important to the discussion on perceived accuracy.

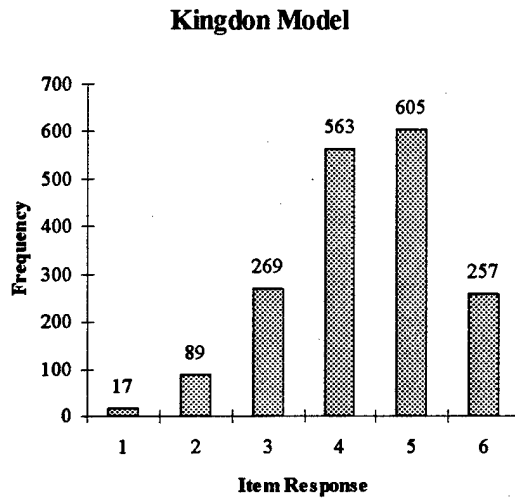


Figure 1. Response frequency to all instrument items for Kingdon's Model

Figure 1, the graph for Kingdon's model, reports a slightly negatively skewed distribution (-.50) with a majority of 4 and 5 responses to items made by the respondents and a $\bar{x} = 4.34$, $\sigma = .52$.

Lindblom's model frequency graph, Figure 2, also reports a slightly negatively skewed distribution (-.66) and a majority of respondents selected 4 and 5 responses to the survey items with $\bar{x} = 3.90$ and $\sigma = .43$.

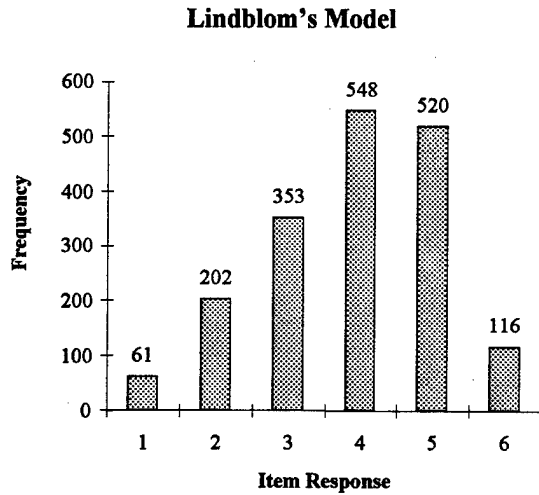


Figure 2. Response frequency to all instrument items for Lindblom's Model

Figure 3, Lovell's model frequency, likewise reports a slightly negatively skewed distribution (-.42) and also shows that a majority of 4 and 5 responses were made to the items on the survey with $\bar{x} = 4.37$, $\sigma = .78$.

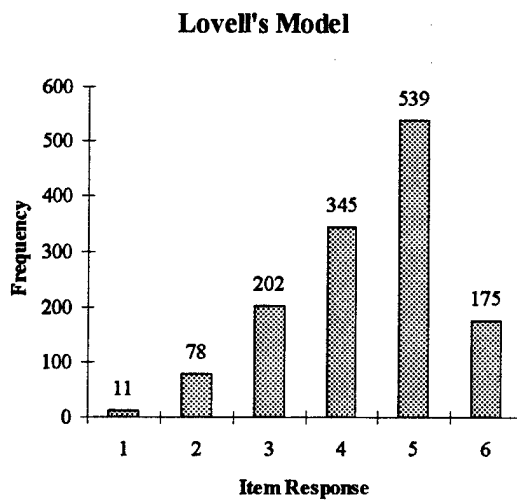


Figure 3. Response frequency to all instrument items for Lovell's Model

Finally, the graph for the combination of all three models (Overall) frequency of responses to survey items, Figure 4, similarly reports a slightly negatively skewed distribution (-.68) and shows that respondents chose either a 4 or 5 for a majority of the items resulting in a $\bar{x} = 4.19$, $\sigma = .47$.

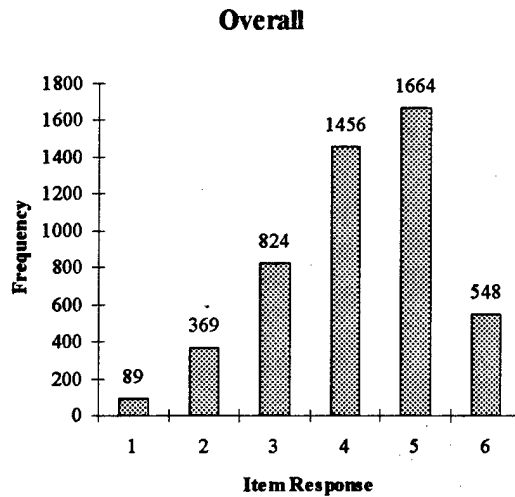


Figure 4. Response frequency to all instrument items overall.

Table 6 reports the cumulative responses to all items within a model. The table shows that respondents scored over 79% of the items pertaining to Kingdon's model with a 4 or higher. Respondents scored over 65% of the items for Lindblom's model with a 4 or higher and they scored over 78% of the items for Lovell's model with a 4 or higher. Overall, respondents scored more than 74% of the items on the survey instrument with a 4 or higher.

Table 6
Cumulative Response Rates to Items by Model

	Kingdon	Lindblom	Lovell	Overall
1	100.00%	100.00%	100.00%	100.00%
2	99.06%	96.61%	99.19%	98.20%
3	94.11%	85.39%	93.41%	90.75%
4	79.17%	65.78%	78.44%	74.10%
5	47.89%	35.33%	52.89%	44.69%
6	14.28%	6.44%	12.96%	11.07%

Table 7 reports the quartiles of the mean scores by each of the three models under study and the Overall mean scores for the instrument.

Table 7
Quartiles of the Mean Scores by Model and Overall

	Kingdon	Lindblom	Lovell	Overall
25 th	3.96	3.63	4.00	3.91
50 th	4.38	3.96	4.39	4.17
75 th	4.80	4.29	5.00	4.56

The remaining tables in this results section report information by model, model by major issue of policy, model by regional compact, and model by system of governance. The tables use the aggregate mean score across groupings of items (such as model or major issue of policy) or across an entire category of respondents (such as Overall, SHEEO, LECC, regional compact, or system of governance). Table 8 reports the mean scores to survey items arranged by model, major issue of policy, and respondent groups.

Table 8
Survey Items by Models and Major Issues of Policy

	Overall	SHEEO	LECC
Kingdon			
Affordability (1-8)	4.45	4.33	4.56
Access (23-30)	4.25	4.05	4.42
Accountability (45-52)	4.31	4.14	4.46
TOTAL	4.34	4.17	4.48
Lindblom			
Affordability (9-16)	3.93	3.66	4.16
Access (31-38)	3.83	3.61	4.02
Accountability (53-60)	3.94	3.86	4.02
TOTAL	3.90	3.71	4.06
Lovell			
Affordability (17-22)	4.43	4.02	4.74
Access (39-44)	4.38	4.03	4.67
Accountability (61-66)	4.30	3.85	4.67
TOTAL	4.37	3.97	4.69

From Table 8, it is clear that the overall scores for Kingdon's (4.34) and Lovell's model (4.37) were higher than the scores for Lindblom's model (3.90). However, the scores between Kingdon and Lovell were close enough to require further examination. The researcher then tested for the significance of differences between the means using repeated measures ANOVA with follow-up tests. An assumption of ANOVA is homogeneity of variance and sphericity is an extension of that assumption. An assessment of the assumption of sphericity resulted in a Greenhouse-Geisser epsilon of .69. Therefore, sphericity was not assumed and degrees of freedom were adjusted for the sphericity violation. Table 9 presents the ANOVA table.

Table 9

Repeated Measures Analysis of Difference Among Models

Source	MODEL	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
MODEL	Greenhouse- Geisser	10.68	1.37	7.78	30.66	<.001	.29
Error		25.76	101.56	.25			

As reported in Table 9, a statistically significant difference ($p < .001$) with a large effect (.29) was found for the difference among the three models but does not distinguish where the differences lie. As shown in Table 10, the paired samples t-tests, the following results were observed:

Table 10

Paired Samples t-Tests for Models

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon's Model – Lindblom's Model	.45	10.55	74	<.001
Pair 2	Kingdon's Model – Lovell's Model	.02	-.28	74	.78
Pair 3	Lindblom's Model – Lovell's Model	-.47	-6.79	74	<.001

Kingdon's (4.34) and Lovell's models (4.37) were not found to be statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking. Lindblom's model was found to be statistically significantly different in perceived observed frequency of

behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model with a lower mean than both.

Of interest to the researcher were the responses by individual group of respondents, the SHEEOs and LECCs. The researcher tested for the differences amongst respondents in perceptions of the three models. Table 11 reports Levene's test of equality of error variance and shows that Lindblom's model met the assumption of homogeneity-of-variance ($p > .1$), but Kingdon's and Lovell's model did not.

Table 11

<i>Levene's Test of Equality of Error Variance</i>				
	F	df1	df2	Sig
Kingdon's Model	2.80	1	73	.01
Lindblom's Model	6.11	1	73	.02
Lovell's Model	.26	1	73	.62

The following ANOVA table (Table 12) reports a statistically significant difference between respondent groups across the models.

Table 12

Analysis of Models Variance by Respondent

Source	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Respondent	11.98	1	11.98	22.22	<.001	.23
Error	41.19	73	.56			

For the LECCs, Table 13 reports the following results of the paired samples t-tests that were conducted to discover the differences between models:

Table 13

Paired Samples t-Tests for Models – LECCs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Total – Lindblom Total	.44	8.23	40	<.001
Pair 2	Kingdon Total – Lovell Total	-.21	-1.92	40	.06
Pair 3	Lindblom Total – Lovell Total	-.65	-7.36	40	<.001

Kingdon's model and Lovell's model were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the LECCs. Lindblom's model was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model as reported by the LECCs with a lower mean.

The researcher ran similar t-tests for the SHEEOs (Table 14).

Table 14

Paired Samples t-Tests for Models – SHEEOs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Total – Lindblom Total	.46	6.67	33	<.001
Pair 2	Kingdon Total – Lovell Total	.21	1.69	33	.10
Pair 3	Lindblom Total – Lovell Total	-.26	-2.58	33	.02

Kingdon's model and Lovell's model were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the SHEEOs. Lindblom's model was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model as reported by the SHEEOs with a lower mean.

The results of the data analysis on models, whether by SHEEO, LECC, or SHEEO and LECC combined are that: (1) all three models have a slightly negatively skewed distribution; (2) a majority of the items were scored as a 4 or 5 by the respondents and; (3) that over 79% of the items were scored by respondents as 4 or higher for the Kingdon model, over 65% for Lindblom's model, while over 78% of the items for Lovell's model were scored with a 4 or higher. Additionally, Kingdon's model and Lovell's model were not found to be statistically significantly different in perceived observed frequency of behavior of

legislators in higher education public policymaking and that Lindblom's model was statistically significantly different and scored the lowest of the three models. The next area of statistical interest is the behavior of the models along major policy issue areas.

Models Along Major Issue of Policy Areas

This section reports the results of analysis of the models across the major issues of policy: affordability, access, and accountability. Table 15 presents "Model by Major Issue of Policy" using aggregate means of these three major policy issue areas. Kingdon's model showed the highest score in the major issues of affordability and accountability policy. Lovell's model also closely matched Kingdon's score in the major issues of affordability and accountability policy and scored highest in the major issue of access policy.

Table 15

Model by Major Issue of Policy

	Affordability	Access	Accountability
Kingdon	4.45	4.25	4.31
Lindblom	3.93	3.83	3.94
Lovell	4.41	4.37	4.28
Total	4.26	4.15	4.18

Seeking to determine if the differences along major issues of policy were statistically significantly different between models, the researcher conducted

further statistical testing. Starting with an assessment of the assumption of sphericity, the Greenhouse-Geisser epsilon was .84 therefore sphericity could be assumed. Table 16 for the repeated measures ANOVA shows a statistically significant difference ($p < .001$) with a large effect (.26) between the three models but does not distinguish where the differences lie.

Table 16

Analysis of Variance for Affordability Policy

Source	MODEL	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
MODAFF	Sphericity	13.14	2	6.57	25.81	< .001	.26
	Assumed						
Error		37.67	148	.255			

As reported in paired samples t-tests, Table 17 below, Kingdon's and Lovell's models were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking for issues of affordability. Lindblom's model is statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model for issues of affordability with a lower mean.

Table 17

Paired Samples t-Tests for Models – Affordability

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Affordability – Lindblom Affordability	.53	8.00	74	<.001
Pair 2	Kingdon Affordability – Lovell Affordability	.02	.30	74	.763
Pair 3	Lindblom Affordability – Lovell Affordability	-.50	-6.14	74	<.001

Of additional interest to the researcher were the response rates by individual group of respondents, the SHEEOs and LECCs. Table 18 reports that Levene's test of equality of error variance shows that all the models met the assumption of homogeneity-of-variance (sig. > .1).

Table 18

Levene's Test of Equality of Error Variance

	F	df1	df2	Sig
Kingdon's Model	.81	1	73	.37
Lindblom's Model	.91	1	73	.34
Lovell's Model	.94	1	73	.34

Additionally, the following ANOVA table (Table 19) reports a statistically significant difference exists across respondents for all the models.

Table 19

Analysis of Models Variance by Respondent

Source	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Respondent	13.45	1	13.45	18.31	<.001	.20
Error	53.62	73	.74			

Table 20 reports the results for paired samples t-tests.

Table 20

Paired Samples t-Tests for Models – LECCs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Affordability – Lindblom Affordability	.41	4.61	40	<.001
Pair 2	Kingdon Affordability – Lovell Affordability	-.20	-1.61	40	.12
Pair 3	Lindblom Affordability – Lovell Affordability	-.61	-7.03	40	<.001

Kingdon's model for affordability and Lovell's model for affordability were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the LECCs. Lindblom's model for affordability was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model as

reported by the LECCs with a lower mean. Table 21 reports the results for the similar t-tests run for SHEEOs.

Table 21

Paired Samples t-Tests for Models – SHEEOs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Affordability – Lindblom Affordability	.67	7.13	33	.00
Pair 2	Kingdon Affordability – Lovell Affordability	.30	2.11	33	.04
Pair 3	Lindblom Affordability – Lovell Affordability	-.36	-2.53	33	.02

Kingdon's model for affordability, Lovell's model for affordability, and Lindblom's model for affordability were statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the SHEEOs. This was a different response pattern than in previous testing. The next major higher education public policy issue under study was access.

The researcher began testing of models across the major policy issue of access starting with an assessment of the assumption of sphericity. An assessment of the assumption of sphericity resulted in a Greenhouse-Geisser epsilon of .91 therefore sphericity could be assumed. The next ANOVA table (Table 22) reports a statistically significant difference ($p < .001$) with a medium effect (.12) between the three models but did not distinguish where the differences lie.

Table 22

Analysis of Variance for Access Policy

Source	MODEL	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
MODACC	Sphericity	6.78	2	3.39	10.76	<.001	.12
	Assumed						
Error		46.58	148	.32			

In paired samples t-tests, Table 23 reports the following results:

Table 23

Paired Samples t-Tests for Models – Access

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Access – Lindblom Access	.45	6.70	74	<.001
Pair 2	Kingdon Access – Lovell Access	-.11	-1.21	74	.23
Pair 3	Lindblom Access – Lovell Access	-.56	-6.75	74	.001

Kingdon's and Lovell's models were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking for issues of access. Lindblom's model was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model for issues of access with a lower mean.

The researcher tested for the differences amongst respondents starting with a test for the assumption of sphericity which resulted in a Greenhouse-Geisser epsilon of .92 therefore sphericity could be assumed. Levene's test of equality of error variance, as reported in Table 24, showed that both Kingdon's and Lovell's models met the assumption of homogeneity-of-variance (sig. > .1).

Table 24

<i>Levene's Test of Equality of Error Variance</i>				
	F	df1	df2	Sig.
Kingdon's Model	.01	1	73	.94
Lindblom's Model	4.05	1	73	.05
Lovell's Model	.00	1	73	.98

Additionally, the following ANOVA table (Table 25) reports a statistically significant difference ($p < .001$) across respondents for all the models with a high effect (.16).

Table 25

Analysis of Models Variance by Respondent

Source	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Respondent	12.42	1	12.42	14.03	<.001	.16
Error	64.64	73	.89			

As reported in Table 26, paired samples t-tests were run to discover the differences with the following results:

Table 26

Paired Samples t-Tests for Models – LECCs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Access – Lindblom Access	.46	5.70	40	<.001
Pair 2	Kingdon Access – Lovell Access	-.21	-1.71	40	.10
Pair 3	Lindblom Access – Lovell Access	-.67	-5.85	40	<.001

Kingdon's model for access and Lovell's model for access were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the LECCs. Lindblom's model for access was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model as reported by the LECCs

with a lower mean. As with the LECCs response, paired samples t-tests were run for the SHEEOs and Table 27 reports the results:

Table 27

Paired Samples t-Tests for Models – SHEEOs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Access – Lindblom Access	.44	3.86	33	<.001
Pair 2	Kingdon Access – Lovell Access	.01	.13	33	.90
Pair 3	Lindblom Access – Lovell Access	-.42	-3.62	33	.02

Kingdon's model for access and Lovell's model for access were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the SHEEOs. Lindblom's model for access was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model as reported by the SHEEOs with a lower mean. The final major issue was accountability, starting with an assessment of the assumption of sphericity.

The assessment resulted in a Greenhouse-Geisser epsilon of .75 therefore sphericity could be assumed. The ANOVA table (Table 28) reports a statistically significant difference ($p < .001$) with a medium effect (.13) between the three models but did not distinguish where the differences lie.

Table 28

Analysis of Models Variance for Accountability Policy

Source	MODEL	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
MODACT	Sphericity	6.78	2	3.39	10.764	<.001	.13
	Assumed						
Error		46.58	148	.32			

As reported in Table 29, paired samples t-tests were run to discover the differences with the following observed results:

Table 29

Paired Samples t-Tests for Models – Accountability

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Accountability – Lindblom Accountability	.37	6.13	74	<.001
Pair 2	Kingdon Accountability – Lovell Accountability	.01	.07	74	.95
Pair 3	Lindblom Accountability – Lovell Accountability	-.36	.01	74	<.001

Kingdon's and Lovell's models were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking for issues of accountability. Lindblom's model was statistically significantly different in perceived observed frequency of

behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model for issues of accountability with a lower mean.

Again, the researcher was interested in the response rates by individual group of respondents, the SHEEOs and LECCs. Therefore, the researcher tested for the differences amongst respondents starting with a test for the assumption of sphericity. Sphericity could be assumed because of a Greenhouse-Geisser epsilon of .75. Table 30, the ANOVA table, reports a statistically significant difference in patterns for respondents ($p < .001$) with a medium effect (.10).

Table 30

Analysis of Models Variance between Respondents

Source	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Main	6.06	2	3.03	10.59	.00	.13
Error	4.82	2	2.41	8.43	.00	.10

Levene's test of equality of error variance showed that Lindblom's model and Lovell's model met the assumption of homogeneity-of-variance ($p > .1$), but Kingdon's model did not, as reported in Table 31.

Table 31

<i>Levene's Test of Equality of Error Variance</i>				
	F	df1	df2	Sig
Kingdon's Model	6.60	1	73	.01
Lindblom's Model	1.04	1	73	.31
Lovell's Model	.11	1	73	.75

The following ANOVA table (Table 32) reports a statistically significant difference exists across respondents for all the models.

Table 32

<i>Analysis of Models Variance by Respondent</i>						
Source	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Respondent	10.17	1	10.17	19.87	<.001	.21
Error	37.38	73	.51			

For the LECCs, paired samples t-tests were conducted to discover the differences between models and Table 33 reports the following results:

Table 33

Paired Samples t-Tests for Models – LECCs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Accountability – Lindblom Accountability	.44	6.70	40	<.001
Pair 2	Kingdon Accountability – Lovell Accountability	-.23	-1.78	40	.08
Pair 3	Lindblom Accountability – Lovell Accountability	-.68	-5.77	40	<.001

Kingdon's model for accountability and Lovell's model for accountability were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the LECCs. Lindblom's model for accountability was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model as reported by the LECCs with a lower mean. The researcher then ran paired samples t-tests, as reported in Table 34, to discover the differences for the SHEEOs with the following results:

Table 34

Paired Samples t-Tests for Models – SHEEOs

		\bar{x} diff	t	df	Sig. (2-tailed)
Pair 1	Kingdon Accountability – Lindblom Accountability	.29	2.69	33	.01
Pair 2	Kingdon Accountability – Lovell Accountability	.30	1.74	33	.09
Pair 3	Lindblom Accountability – Lovell Accountability	.01	.08	33	.94

Kingdon's model for accountability and Lovell's model for accountability were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the SHEEOs. Lindblom's model for accountability and Lovell's model for accountability were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking as reported by the SHEEOs. However, Lindblom's model for accountability was statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from Kingdon's model as reported by the SHEEOs.

The results of the data analysis on models along lines of major issue of policy show some differences between respondent groups of SHEEO, LECC, and the combination of SHEEO and LECC (Overall). For the major areas of affordability and access, LECCs, SHEEOs, as well as the groups combined, report that Kingdon's model and Lovell's model were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking and that Lindblom's model was statistically significantly different than both and scored lowest of the three models. For the major area of accountability, LECCs as well as the combined groups report that Kingdon's model and Lovell's model were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking and that Lindblom's model was statistically significantly different than both and scored lowest of the three models. However, SHEEOs

report that Kingdon's model and Lovell's model were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking. They also report that Lindblom's and Lovell's model were not statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking. Finally, they report that Kingdon's and Lindblom's model were statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking. The next area of interest is the results of models across regional compacts.

Models Along Regional Compacts

This section reports the perceived accuracy of models along regional compacts. Table 35 presents "Model by Regional Compact" using aggregate overall mean score of states within a regional compact (MHEC, NEBHE, SREB, and WICHE).

Table 35

Model by Regional Compact

	Midwestern (MHEC) N = 13	New England (NEBHE) N = 10	Southern (SREB) N = 27	Western (WICHE) N = 23
Kingdon	4.49	4.23	4.44	4.24
Lindblom	4.04	3.66	3.89	3.95
Lovell	4.81	4.07	4.25	4.44
Total	4.46	3.92	4.19	4.21

Kingdon's model shows the highest score in two of the four compacts, New England and Southern. Lovell's model scored highest in the other two compacts, the Midwestern and Western compacts. However, the scores across all four regional compacts and between Kingdon and Lovell are close enough to require further examination. The researcher then tested for differences between the model means along lines of regional compacts, starting with an assessment of the assumption of sphericity. Sphericity could be assumed because of a Greenhouse-Geisser epsilon of .69. The ANOVA table reports with a medium effect no statistically significant difference in patterns across regional compacts ($p = .09$), as shown in Table 36.

Table 36

Analysis of Models Variance within Regional Compacts

Source	MODEL	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Main	Greenhouse-Geisser	9.90	1.38	7.19	29.64	<.001	.30
Interaction		2.04	4.13	.49	2.04	.09	.08

Checking for the homogeneity of variance using Levene's test of equality of error variance, Table 37 shows that variances were equivalent across regional compacts for Kingdon's and Lovell's model ($p > .1$) while for Lindblom's model they were not.

Table 37

<i>Levene's Test of Equality of Error Variance</i>				
	F	df1	df2	Sig
Kingdon's Model	.73	3	69	.54
Lindblom's Model	3.33	3	69	.03
Lovell's Model	.04	3	69	.99

Additionally, the following ANOVA table (Table 38) reports no statistically significant difference exists across regional compact for the models.

Table 38

<i>Analysis of Models Variance between Regional Compacts</i>						
Source	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Regional Compact	3.68	3	1.23	1.77	.16	.07
Error	47.95	69	.70			

While no statistically significant difference was found among regional compacts for the models, the researcher ran the Tukey post hoc test to maintain the family-wise rate at $\alpha = .05$ for the entire set of pairwise comparisons. Tukey is moderately conservative and moderate in power for pairwise, post hoc or unplanned testing. Pairwise testing is a comparison of the means one pair at a

time. Tukey results are reported in Table 39 with the means ordered from lowest to highest. Tukey post hoc test reports NEBHE differed from MHEC:

Table 39

<i>Tukey B</i>			
Regional Compact		Subset	
	N	1	2
NEBHE	10	3.98	
SREB	27	4.19	4.19
WICHE	23	4.21	4.21
MHEC	13		4.44

The profile plots show the results graphically in Figure 5. Lovell's model is depicted by line 3, starting at 4.8. Kingdon's model is depicted by line 2 starting at 4.5 while Lindblom's model is depicted by line 1, starting at 4.1.

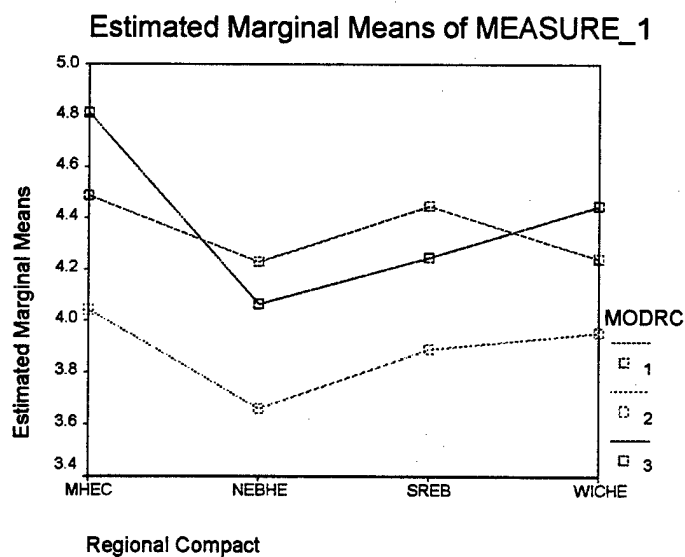


Figure 5. Profile Plot for Regional Compacts

The next part of this section details the results of data analysis for the models along systems of governance.

Models Along Systems of Governance

In the analysis for the models along systems of governance, Table 40 presents “Model by System of Governance” using aggregate overall mean score of states within a system of governance (CB, CGB, P/SA).

Table 40

Model by System of Governance

	Coordinating Board (CB) N = 31	Consolidated Governing Board (CGB) N = 35	Planning/ Service Agency (P/SA) N = 9
Kingdon	4.31	4.36	4.42
Lindblom	3.84	4.00	3.68
Lovell	4.22	4.42	4.65
Total	4.11	4.27	4.20

Kingdon's model shows the highest score for Coordinating Boards as a system of governance. Lovell's model shows the highest score for both Consolidated Governing Boards and Planning/Service Agencies. However, the scores across the three systems of governance and between Kingdon and Lovell are close enough to require further examination. The researcher then tested for differences between the model means along lines of system of governance, starting with an assessment of the assumption of sphericity. Sphericity could be assumed because of a Greenhouse-Geisser epsilon of .66. The ANOVA table (Table 41) reports with a medium effect no statistically significant difference in patterns across regional compacts ($p = .09$).

Table 41

Analysis of Models Variance within Systems of Governance

Source	MODEL	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Main	Greenhouse- Geisser	11.06	1.32	8.38	32.94	<.001	.32
Interaction		1.58	2.64	.60	2.35	.09	.07

Note: $\alpha = .05$

Checking for the homogeneity of variance using Levene's test of equality of error variance, Table 42 shows that variances were equivalent across systems of governance for all three models (sig. > .1).

Table 42

Levene's Test of Equality of Error Variance

	F	df1	df2	Sig
Kingdon's Model	.35	2	70	.70
Lindblom's Model	1.03	2	70	.36
Lovell's Model	1.48	2	70	.23

Additionally, the following ANOVA table (Table 43) reports no statistically significant difference exists across regional compact for the models.

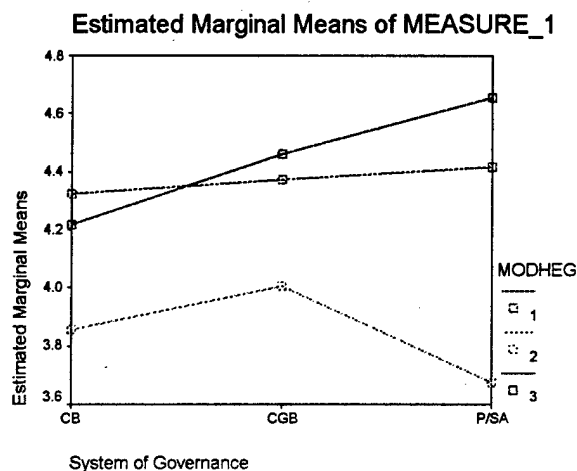
Table 43

Analysis of Models Variance between Regional Compacts

Source	Type III Sum Of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
System of Governance	1.07	2	.53	.74	.48	.02
Error	50.56	70	.72			

Note: $\alpha = .05$

The Post Hoc test for Tukey B showed no significant differences between the systems of governance pairwise. Finally, the profile plots, Figure 6, show the results graphically, with Kingdon's model depicted by line 1 and starting at 4.3, Lovell's model depicted by line 3 and starting at 4.2 with Lindblom's model depicted by line 2, starting at 3.85.

*Figure 6. Profile Plot for Systems of Governance*

Analysis of the Elements of the Models

Finally, the researcher was interested in the elements of each model.

Table 44 reports the response mean in order from highest to lowest for the combined response groups for the elements for each of the three models.

Table 44

Order of Perceived Frequency of Elements – Overall

Element	Score
KI3 - Politics	4.63
KI2 - Policy	4.57
LO1 - Inclusion	4.47
LO2 - Values	4.34
KI1 - Problems	4.29
LO3 - Empowerment	4.29
LI2 - Preference	4.25
LI1 - Values	4.07
KI4 - Coupling	3.89
LI4 - Non-theoretical	3.65
LI3 - Incremental	3.62

Figure 7 is a graphical representation of Table 44 that reports the element mean from highest to lowest.

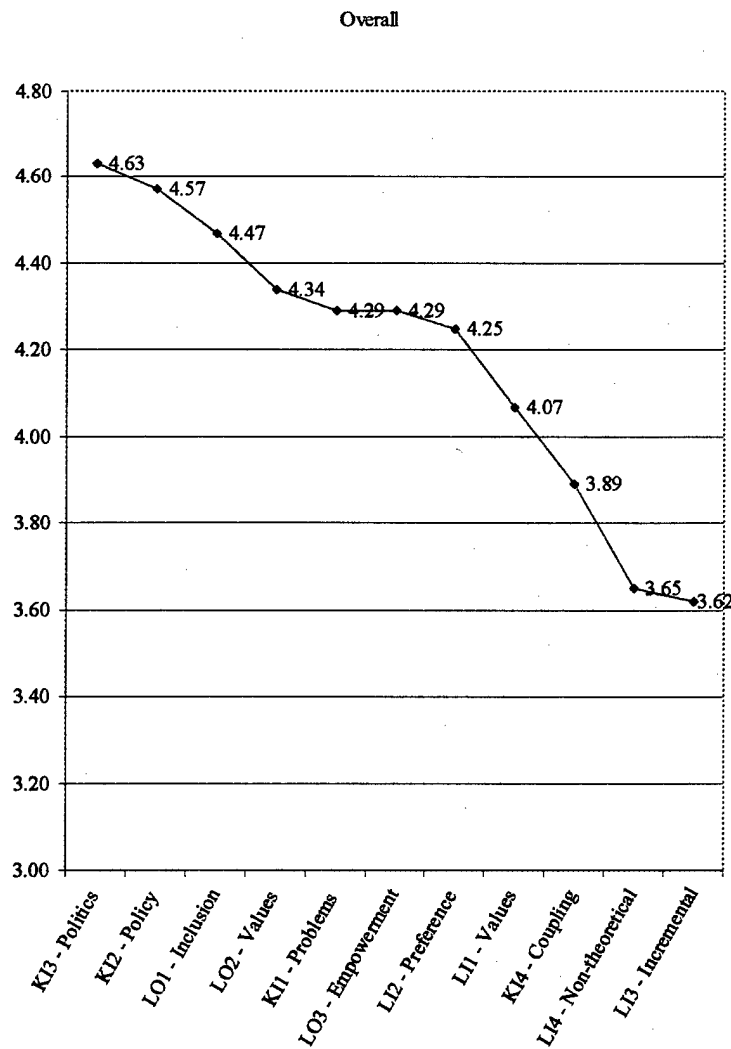


Figure 7. Plot for Element Mean by Rank Order

Respondents' Comments

On the final page of the survey an open-ended question was presented asking the respondents to comment on the survey. The comments from respondents fall into three broad categories which are detailed in this section. The first category included discussions on the survey method employed by this study. Respondents reported that the length of the survey was a minor detractor for them.

A few respondents recommended face-to-face interviews as both an alternative to the survey and as a follow-up to this research. Second, respondents noted that values of the policymakers and their constituents were very important in determining which public policy was legislated. This theme was likewise reported in their responses to the survey items dealing with values. Finally, respondents commented that the study of models was important because it was "an area of research badly needed."

Research Questions Answered

The analytical goal of this study was to test for the perceived accuracy of three models of policymaking, Kingdon's Multiple Streams (1995), Lindblom's Bounded-Rationality (Incrementalism) (1959), and Lovell's Three-Tier Taxonomy (2001). This research also sought to discover if the perceptions varied by one of the three major higher education public policy issue areas, regional compact, or by type of higher education governance system. The framework for the collection and analysis of the data responded to the four research questions stated below. What follows in this section are answers to and discussions of the four research questions and the perceived accuracies of the models as tested within this study. **For a model to have perceived accuracy in this study, it must have had a mean of 4 or higher. A mean of 4 was set as the demarcation for perceived accuracy because it indicated that it was likely to observe a reasonable frequency of legislative behavior with a regularity of pattern.**

Research Question 1

Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy? Kingdon's and Lovell's model scored the highest and were not considered statistically significantly different. In addition, they both had a mean above 4 and for this study, were perceived as accurate. Lindblom's model was not perceived as accurate in this study because the mean was below 4.

Research Question 2

Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along major policy issue areas? No statistically significant difference was discovered across the major policy issues under study—the issues of affordability, access, and accountability. Kingdon's and Lovell's model means were above 4, they were not considered statistically significantly different, and they were both perceived as accurately depicting how policymakers produced higher education public policy along lines of major issue of policy. Due to a mean score below 4, Lindblom's model was not perceived as accurate in this study along major policy issue areas.

Research Question 3

Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of regional higher education compacts (MHEC, NEBHE, SREB, or WICHE)? Again, Kingdon's and Lovell's models were not statistically significantly different along lines of regional compact. These two models had the highest mean across regional compacts with means above 4. Hence, Kingdon's and Lovell's were both perceived as accurate across all four regional compacts. Lindblom's model scored above 4 in only the MHEC regional compact and was not perceived as accurate in this study for the other three regional compacts. Of note, a statistically significant difference was noted between the NEBHE and MHEC regional compacts while the other regional compact pairs were not found to be statistically significantly different from each other.

Research Question 4

Which model or elements of models do State Higher Education Executive Officers and Legislative Education Committee Chairs perceive as accurately depicting how policymakers produced higher education public policy along lines of systems of higher education governance (Consolidated Governing Board, Coordinating Board, Planning/Service Agency)? Finally, no statistically significant difference was observed along lines of system of

governance. Kingdon's and Lovell's model means were the highest across systems of governance, had means above 4, but were not considered statistically significantly different from each other. Lindblom's model scored above a 4 in only the Consolidated Governing Board (CGB) system of governance. Consequently, Kingdon's and Lovell's were both perceived as accurate in all three systems of governance while Lindblom's model was only perceived as accurate in the CGB system of governance for this study.

Discussion

The methodology employed in this study demonstrated a quantitative, empirical testing of these three models and the elements of each of them. Kingdon's and Lovell's model were not statistically significantly different from each other and were perceived to be accurate. Lindblom's model was found to be statistically significantly different from both Kingdon's model and Lovell's model. It was perceived not accurate in the current higher education public policy environment in all the policy issues, three of the four regional compacts, and two of the three systems of governance. To understand why these three models were perceived this way requires an examination and discussion of the eleven elements that comprise the models, keeping in mind that only eight of the eleven elements from the three models were perceived as accurate.

Dye (1972) explains how models help describe, simplify, clarify, identify, communicate, direct inquiry, and provide possible explanations for policy an outcome of the policymaking process. The three models under study were

developed to detail the process of policymaking, to explain a highly complex process in clear and identifiable parts. The model could then effectively communicate to others the process and establish for future study possibilities in changes to either the process or the effects of the process on policy (Birkland, 2001; Burns, Peltason, Cronin, & Magleby, 1998; Fowler, 2000; Gerston, 1997; Heller, 2001; Howlett & Ramesh, 1995; Lindblom & Woodhouse, 1993; Sabatier, 1999; Stone, 1997). Two heuristics were noted in examining the three models in this study, Easton's systems heuristic and Anderson's stages heuristic.

While different, the stages heuristic and the systems heuristic are both reasoned approaches to a convoluted political process. They are an attempt to make meaning of and organize that which so often is referred to as unclear, unorganized, disorderly, illogical, incoherent, and ill-structured (Anderson, 1975; Birkland, 2001; Bowen, 1997; Burns, Pelatson, Cronin & Magleby, 1998; Crosson, 1984; Dror, 1971; Easton, 1965b; Fowler, 2000; Hartmark & Hines, 1986; Heller, 2001; Kingdon, 1995; Lindblom, 1959, 1968, 1979, 1982; Lovell, 2000; Lowi, 1964, 1970, 1972, 1992; Nagel, 1979, 1980; Newman, 1985; Richardson, Bracco, Callan & Finney, 1999; Sabatier, 1999; Theodoulou & Cahn, 1995). Whether the elements of each of the models under study stem from the systems or stages heuristic, the models are composed of elements. These elements were detailed in the content analysis (see Appendix A-C). This section details those elements and discusses why they were perceived as accurate overall.

Kingdon's model describes policymaking as the "untidy...set of processes" or streams of problems, policies, and politics that arrive at a window

of opportunity and culminate in implementation of a decision or policy (Kingdon, 1995, p. 19). The first stream discussed is the political stream which is composed of such things as public mood, organized political forces, the events of government itself, and consensus building. The politics stream reflects Easton's description that it is possible "to extricate from the total political reality those aspects [components] that can be considered the fundamental processor activities without which no political life in society could continue" (Easton, 1965b, p. 13). Easton presented the public policymaking process as a political life cycle, a complex organism with many procedures for solving problems or responding to demands with policy. Policy, as detailed by Kingdon's model, is a separate but connected stream that, as in the garbage can model, flows towards a point where policymakers will eventually make policy or a point "which does not meet the conditions for more classical models of decision making" (Cohen, March, & Olsen, 1972, p. 16). Anderson (1975) saw politics as the relationship portion of the stages. One could argue that politics was considered inherent in Anderson's categories, as it described the political process of public policymaking, while Easton and Kingdon were more explicit. Regardless, the politics stream was but one of three streams. It appears that the respondents to this study agreed with the idea that the political stream is ever present, and requires explicit description as it is an integral part of the policymaking process. Respondents perceived that legislators judged the degree of consensus among interested organized political forces. They perceived that legislators sensed the public mood towards support of a policy prior to lending their own support. Legislators also determined whether

the balance of power favored the action by looking to see whether a shift in public mood towards support of a policy occurred. Respondents perceived that legislators gauged whether the general public would at least tolerate the direction pursued. These were all political decisions. As described by Kingdon's model, these political decisions were part of the overall process, as are the streams of problems and the streams of policies which are discussed next.

The problem stream was much more akin to a stage. Specifically, it was akin to Anderson's second stage because in looking at the sequence of the policymaking process, the first question a policy analyst asks is, "how problems come to the attention of policymakers; how policy proposals are formulated to deal with particular problems, and how a specific proposal is chosen from adoption among the competing alternative" (Anderson, 1975, p. 55). "Fairly often, problems come to the attention of governmental decision makers not through some sort of political pressure or perceptual slight of hand but because some more or less systematic indicator simply shows that there is a problem out there" (Kingdon, 1995, p. 90). Kingdon's model described the process through which problems gain attention as either focusing events or feedback. These focusing events can be either a "crisis or disaster that comes along to call attention to the problem, a powerful symbol that catches on, or the personal experience of a policy maker" (Kingdon, 1995, pp 94-95). Respondents perceived that the problem stream was present in policymaking. They did so because they perceived that legislators relied on perceptions, feedback, and signals from advocates that a problem or crisis existed. Also, LECCs and SHEEOs perceived that legislators

responded to both the perceived and the actual problems or crisis events. The remaining stream in the Kingdon model that was perceived as accurately reflecting legislative behavior in policymaking is the policy stream.

Kingdon's model describes the policy stream as "policy primeval soup" containing policy communities and ideas in which "a large number of possible policy initiatives is narrowed down to a short list of proposals that are seriously considered" (Kingdon, 1995, p. 143). The policy stream is best seen as a selection process of proposals, specifying the alternative that survives the complex interaction of communities and of ideas that are "compatible with the values of specialists" in the communities (Kingdon, 1995, p. 132). This policy stream is similar to the policy formulation stage presented by Anderson. Policy formulation "involves the development of pertinent and acceptable proposed courses of action" (Anderson, 1975, pp 66-67). Policy formulation relies heavily on "how the alternatives for dealing with the problem developed" (p. 26). Respondents likewise perceived this stream to be an accurate description of policymaking. They reported that legislators considered whether a specific policy was a feasible solution to the problem and whether a specific policy had political support prior to lending their support. LECCs and SHEEOs also perceived that legislators wanted to know whether a policy would be difficult to implement before getting behind a policy and whether a policy met a test of public acceptance. Finally, respondents perceived that legislators wanted to understand if a policy had a reasonable chance of being accepted by elected decision makers. These three streams are but a part of the four elements that comprise the Kingdon

model. They were perceived as accurate indications of legislative behavior in policymaking. The next model, Lovell's model, had all three of its elements perceived as accurate

Lovell's model conceptualizes policymaking as three tiers reliant upon inclusion, values, and empowerment. This is a discussion of the three elements and reasons why respondents perceived these elements as accurate reflections of policymaking. First, Lovell's model detailed how stakeholders must be invited to the policymaking process (Lovell, 2001). Easton described the environment in which the political system lay as divided in two parts: the intra-societal and the extra-societal. "The first consists of those systems in the same society as the political system but excluded from the later by our definition of the nature of political interactions. Intra-societal systems would include such sets of behavior, attitudes, and ideas as we might call the economy, culture, social structure, or personalities; they are functional segments of the society with respect to which the political system at the focus of attention is itself a component" (Easton, 1965b, p. 21). The intra-societal part of the public policymaking system also consists of those components such as stakeholders, policymakers, structures of government, and funds. To fully understand these intra-societal concerns one would need to involve the stakeholders as they are the holders of these concerns. Likewise, Anderson's second stage shows how stakeholders must be invited to policymaking because the first question a policy analyst asks is, how are problems and policies formulated (Anderson, 1975). This demands inviting stakeholders if one wants to fully categorize the *how*. Respondents agreed with Lovell's model.

LECCs and SHEEOs perceived that including stakeholders helps identify problems and helps identify alternatives for solutions. Policymaking is intended as a problem solving procedure and therefore, legislators were seen as inviting those who could clearly identify the problems and possible solutions...the stakeholders. Along with inviting the stakeholders, Lovell's model describes how legislators should examine values.

The examination of values was perceived as an accurate description of policymaking. The second step of Lovell's Three-Tier Taxonomy describes a need for congruence to exist between the proposed higher education public policy and the values of the institutions or systems affected by the higher education public policy. The higher education public policy must not work at cross measures with itself or the institutions and systems to which it legislates. Knowing the values expressed helps the policymaker understand how to produce good higher education public policy (Berdahl, 1971, 1974; Kingdon, 1995; Lindblom, 1959; McGuiness, 1997; Waggaman, 1984; Weingartner, 1996). It helps the policymaker because the values often tell a story about the history and context of the problem at hand. The values also help the policymaker narrow the large list of options available to a small list of reasonable, feasible, and manageable solutions (Anderson, 1975; Birnbaum, 1988; Dror, 1971; Dye, 1972; Easton, 1965b; Hines, 1988; Kingdon, 1995; Lindblom, 1959; Weingartner, 1996; Wildavsky, 1973). "To be of maximum utility, I have argued, a political system can be designated as those interactions through which **values** are authoritatively allocated for a society: this is what distinguishes a political system from other

systems that may be interpreted as lying in its environment" (Easton, 1965b, p. 21). Respondents perceived Lovell's model as accurately reflecting how legislators worked towards finding value congruence. LECCs and SHEEOs perceived that legislators gave due consideration to stakeholder values when identifying problems, discussing possible solutions, and selecting a possible solution or policy. However, once the values of the stakeholders were considered for adoption, the efforts to effectively implement it demanded empowerment.

The third step in Lovell's Three-Tier Taxonomy acclaims a need for legislative ascription at an appropriate level of administration or management for the higher education public policy to enhance its outcome. Therefore, clear instructions in the higher education public policy to the administrators and ensuring their empowerment will help make certain the administrators meet both the intent of the policy as well as the expectations of the policy. Lovell's model warns that a micromanaged higher education public policy will not work as effectively as one with both greater flexibility in employment and autonomy (Anderson, 1975; Birnbaum, 1988; Dror, 1971; Dye, 1972; Easton, 1965b; Hines, 1988; Kingdon, 1995; Lindblom, 1959; Weingartner, 1996; Wildavsky, 1973). Policy implementation occurs primarily through complex systems and a number of different agencies (Anderson, 1975, 1990). What makes implementation through empowerment an important stage in the policymaking is the discretion afforded agencies in implementing policy. Anderson asks the analyst to consider the following questions when examining the implementation of policy, "What is done, if anything, to carry a policy into effect? What impact does this have on

policy content" (p. 26)? The implementation category addresses both the *who* and the *how* of putting the resulting decision of the policymakers into practice. This generates a brand new decision-making process, this time for the administrator. Who will "carry the policy into effect" (p. 26)? What authority will the person carrying the policy into effect have? What enforcement measures do they have at their disposal? What sanctions can they impose? LECCs and SHEEOs perceived that legislators did avoid micromanaging in policy implementation and granted the appropriate level of authority for enforcing policy. Respondents perceived Lovell's model was accurate and complete as a model of policymaking. Lindblom's model, however, was perceived as only having two accurate elements out of four.

Lindblom's model presents policymaking as an environment that necessarily demands policymakers muddle through or incrementally alter the status quo (Lindblom, 1959). The two elements of Lindblom's model that were perceived as accurate by the respondents were value examination and preferences. Since Lovell's model already discussed why respondents perceived value examination as accurate, and it is the same discussion for Lindblom's model, this section will only address preferences.

Policy preference "involves the development of pertinent and acceptable proposed courses of action for dealing with public problems" (Anderson, 1975, 66-67). Anderson referred to this as Policy Formulation and described it as a systemized process of standardizing according to a prescribed manner. Policy formulation is the process of standardizing, or rating, the proposed policy as a

viable, practical, "relevant," solution to the identified problem. Policy formulation may be action, or it may be inaction, as the policymakers see fit (Anderson, 1975). Policy formulation relies heavily on "how the alternatives for dealing with the problem developed" (Anderson, 1975, p. 26), and "who participates in the development of policy proposals" (p. 67). As cited earlier, Easton described how we can view policymaking as a system (Easton, 1965b). It is a system of selecting possible solutions to problems through a process of preferences. Respondents reported that they perceived Lindblom's model accurately described this preference element. LECCs and SHEEOs perceived that legislators selected a "most preferred" policy, one that selected a policy that seemed more favorable than other policy recommendations made at the same time. Respondents perceived that legislators selected policies with clearly defined outcomes and that others agreed was 'good' policy. They perceived that legislators sought policy that supported the most preferred objectives and that appeared to be "the best" policy.

Eight of the eleven elements from the three models were perceived as accurate, three of Kingdon's four elements, all three of Lovell's elements, and two of Lindblom's four elements. Two elements dealt with the same concept, that of values. Therefore, seven elements were perceived as accurate. They were perceived as accurate because they fully addressed the political procedures at play in policymaking. The role of policymakers as problem solvers demanded both problems and solutions, or policy, as part of the process. Likewise, a full examination of the problems and possible policies required stakeholder presence

and an early and complete understanding of the values involved. Also, in selecting a policy, preferences were expressed. Finally, once selected, a policy was seen as empowering administrators to implement both the letter and intent of the policy. While eight of the elements were perceived as accurate, three of the eleven elements were not perceived as accurate.

The concept of a policy window described by Kingdon's model was not perceived as accurate. In a window of opportunity, a policymaker must decide whether or not a problem, policy, and political opportunity combine at a point in time (Kingdon, 1995). This decision is difficult to observe because it is often an internal decision (Baxter-Magolda, 1999). Along with being difficult to observe, internal decisions are not easily modeled. Additionally, the opening and closing of a window could be considered a subjective decision. Kingdon's model does describe the external factors associated with the decision point. None the less, respondents report that Kingdon's window is not an accurate descriptions of the policymaking process.

Likewise, reliance on theories is no longer drastically limited as Lindblom's model describes policymaking. This is due to the increased availability of information and the sophisticated tools to analyze data (Anderson, 1990; Sabloff, 1995). Rather, reliance on theories is more inherent and comprehensive than it was when Lindblom put forward the model. Additionally, state legislatures participate in and rely upon national organizations, such as the Education Commission of the States (ECS) and the National Conference on State Legislatures (NCSL), for information on state policy issues (Fowler, 2000). Both

ECS and NCSL publish research information that inherently assesses theories and at times directly appraises theories. Similarly, the state legislator is becoming less of a part-time statesman and more of a professional with a college education (Sabloff, 1995). Their academic backgrounds are in public administration, political science, or as in the case of LECCs, in a specialty such as education (NCSL, 2003). With this academic background comes instruction in the theories and schools of thought. Finally, incremental policy is not perceived as the norm in public policymaking according to the results of this study.

According to the responses in this study, incrementalism might have been the norm at one time but it is not perceived to be an accurate description of the policymaking process assessed in the time frame of this study. This is contrary to the literature (Anderson, 1978; Braybrooke & Lindblom, 1963; Birkland, 2001; Etzioni, 1967; Goodchild, Lovell, Hines, & Gill, 1997; Lindblom, 1957, 1968, 1979; McGuinness, 1997; Lovell, 2000, 2001, 2002, 2003; Stone, 1997) and might be indicative of trend. However, the literature does point out that State legislators are more informed, more connected, and have more political action committees with which to contend (Burns, Peltason, Cronin, Magleby, 1998; Weingartner, 1996). The large source of information available to state legislators creates a condition where an incremental change may not be palatable. State legislators may perceive that either a change is required, or it is not. This is especially true during major shifts in political control (Kingdon, 1995). Through the extended connections with such organizations as ECS and NCSL, state legislators are able to find policies made in other states. These policies may then be presented as the

necessary condition for solving a problem, not as an increment towards an ultimate solution. One might also contend that with the increase in political action committees, state legislators develop a more narrowly focused attention. These narrowly focused legislators are then less likely to contemplate the wider scope of interests. They are less likely to see a particular policy in its broader context than as the ultimate solution to a very specific situation. Legislators were perceived as less likely to select an incremental solution in this study.

The preceding discussion related how three elements of the eleven examined were not perceived as accurate. Eight of the elements were perceived as accurate. This discussion was related to the models' overall performance. What about their performance along line of major issues of policy, regional compacts, and systems of governance?

This researcher examined the models across major issues of policy to determine if perceived accuracy was affected by issue. Overall, the models were not affected by major issue with Kingdon's and Lovell's models perceived as accurate and Lindblom's model not perceived as accurate. However, perceptions did differ at times and this discussion will detail those differences. The first difference noted was between response groups, the LECCs and the SHEEOs.

LECCs perceived that Kingdon's and Lovell's model were accurate regardless of major issue of policy. SHEEOs differed with LECCs in perceptions for affordability and accountability. When assessing the models across the major issue of affordability, SHEEOs reported a statistically significant difference existed between all three models, but perceived Kingdon's and Lovell's models as

accurate and Lindblom's model as not accurate. For accountability, SHEEOs reported no statistically significant difference existed between Kingdon's and Lovell's models nor was there a statistically significant difference between Lindblom's and Lovell's models.

Perhaps LECC model means are higher because LECCs are grading their own and fellow legislator performance (Babbie, 1990; Dillman, 2000; Likert, 1951). The LECC model means might be higher because the model authors observed legislative behavior directly and did not rely on filtered perceptions from SHEEOs (Kingdon, 1995, 2000; Lindblom, 1959, 1979, 2001; Lovell, 2000, 2001). Likewise, perhaps SHEEO model means are lower because they are grading LECCs and not themselves from an outside viewpoint. SHEEOs might be more objective (Babbie, 1990; Dillman, 2000; Gall, Borg & Gall, 1996; Likert 1951). Possibly, SHEEO model means were lower because of dissatisfaction with the behavior of legislators on key education legislation (Adelman, 1999). Finally, perhaps SHEEOs model means are lower because of a bias from their education backgrounds (twenty-two of fifty SHEEOs have a Ph.D. in Political Science, Education, Public Administration or an Ed.D.). It seems likely that a combination of these possibilities (self-inflation, direct observation of legislative behavior, objectivity, dissatisfaction, and educational bias) led to the mean scores. Regardless, these effects were across all the major issues, and even found in the assessment along regional compacts and systems of governance. What about the specifics of the major issues of policy?

Affordability is a constant issue for state legislators (Association of Governing Boards, 2002; Education Commission of the States, 1997, 2002; Gladieux, Hauptman, Knapp, 1997; Hannah, 1996; Heller, 2001; McGuiness, 1997; National Conference of State Legislatures, 2002; U.S. Department of Education, 2002). As budgets are reconsidered, so too are the relative costs (King, 1999; Weingartner, 1996). This research was conducted during a period when states were battling with reductions in revenue and therefore, the affordability question may have been foremost in higher education legislative considerations (Education Commission of the States, 1997, 2002; National Conference on State Legislatures, 2002). Likewise, when affordability (cost) is considered, its sister issue of access is considered (Heller, 2001).

When legislation places an increased burden on students to pay for the cost of higher education, the legislation also affects student access (Bok, 1986; Boyer, 1987; Heller, 2001; King, 1999; Weingartner, 1996). When higher education becomes unaffordable, it likewise is not accessible. Legislators are hesitant to restrict access to higher education, and for due cause. Aside from the social implications (Easton, 1965b; Lasswell, 1951), the political decision to restrict access was not seen as palatable (Heller, 2001) nor conducive to re-election (Adelman, 1999; Burns, Peltason, Cronin, & Magleby, 1998, Fowler, 2001; Sabloff, 1995, 1997; Stone, 1997).

Finally, accountability is likewise tied to the affordability issue because legislators are asked to steward the public coffers (Burns, Peltason, Cronin, & Magleby, 1998, Fowler, 2001; Heller, 2001; Sabloff, 1995, 1997; Stone, 1997;

Zumeta, 1998). This stewardship requires details be reported to and from legislators, it is an accounting of the public's money (Stone, 1997; Zumeta, 1998). Changes in spending, deletion of programs due to costs, and fluctuating revenue environments make this a difficult process. Some states are nearly automated in their budgeting process effecting policymaker decision making (e.g. Colorado has a Tax Payers' Bill of Rights—TABOR—which severely curtails decisions policymakers can make). However, even the automation does not detract from the critical nature of accountability. Few decisions in policy are without budget implications (Weingartner, 1996) and legislators see a direct link between budgeting for programs and their own effectiveness as policymakers.

The marrying of these three issues related to funding, budgeting, and a right to use funding is unlikely to develop a difference between the models because they are tied to public money. If a model is accurate for one major issue of public funding, it is likely to be accurate across all three issues of money because the issues are coupled in the budgetary process. This was true of the three models under investigation.

Each of the models' authors tried to represent the budget process in policymaking. Kingdon's model was perceived as accurate because financial matters are often convoluted and difficult to categorize; they are untidy. Kingdon's model describes policymaking as the "untidy...set of processes" or streams of problems, policies, and politics that arrive at a window of opportunity and culminate in implementation of a decision or policy (Kingdon, 1995, 19). State budgeting is a process that requires a considerable amount of time and often

involves a number of groups or stakeholders. Getting to understand their values and ensuring they have empowerment over funds disbursed to them is indicative of two elements of Lovell's model. However, it is not necessarily a theory-based process. This is an element of Lindblom's model and was not perceived as an accurate depiction by the respondents.

The literature likewise described how the procedures for policymaking vary among states, yet this was not supported by the research in this study. States with greater similarities, as the literature reports, shared regional compact membership (Adelman, 1999; Association of Governing Boards, 2001; Boland, 2001; Education Commission of the States, 1997, 2001; National Conference on State Legislatures, 2001, 2002). The similarities between states and subsequently the regional compacts were thought to influence policymaking (Adelman, 1999; Association of Governing Boards, 2002; Berdahl, 1990; etc.). The research points out that states within a region do act differently from other regions. These models perceived accuracies that did not vary across regions with the exception of the MHEC and NEBHE pair. The lack of difference noted in this dissertation contradicts the literature.

What is striking about these results is the difference between Midwestern and New England regional compact states (Education Commission of the States, 1997; Fowler, 2000; Marshal, Mitchell, & Wirt, 1989). The Midwestern and New England compacts have historically been grouped together because they have "well established and highly respected private postsecondary education sectors" (Education Commission of the States, 1997, p. 18). The key to their similarities is

the "extent to which postsecondary education is seen as a societal or individual benefit" (p. 18). Perhaps the models do not reflect the differences because they are less sensitive to the fluctuations, assuming the fluctuations are small in comparison to other aspects of the models. Maybe the models are sufficiently broad to account for the general behavior of legislators. The regions might have changed over the last few years, moving towards a more homogeneous grouping. Finally, with the increase in information technologies, perhaps the proximity factors weigh less than they once did. Regardless, this study found that there was no statistically significant difference between the regions but when compared pairwise, the NEBHE and MHEC were no longer similar.

The literature also pointed to possible differences between systems of governance. Model perceived accuracy did not vary by higher education system of governance in this study. The literature reported that differences should occur along lines of system of governance (Association of Governing Boards, 2002; Berdahl, 1990; Boland, 2001; Bok, 1986; Boyer, 1987; Education Commission of the States, 1973, 1997, 2002; Fowler, 2002; Gladieux, Hauptman, & Knapp, 1997; Heller, 2001; Hines, 1988; King, 1999; Lovell, 1997; McGuiness, 1997; Mingle, 1988; Mingle & Epper, 1996; National Conference of State Legislatures, 2002; Sabloff, 1995; U.S. Department of Education, 2002; Weingartner, 1996). In this section is a discussion on how the models operate within each of the three systems of governance, starting with the Consolidated Governing Board, then the Coordinating Board and finally the Planning/Service Agency.

The Consolidated Governing Board (CGB) system of governance relies on a board "to govern the institutions under its jurisdictions" (Education Commission of the States, 1997, p. 10). These CGBs are relatively centralized and so legislative interaction is basically injected into a top-down system. The result of injection into a top-down system might be broader policies, leaving the CGB to administer the policy. Additionally, since the CGB systems of governance rely on a board to consolidate and govern higher education, this can reduce the amount of legislative impact on everyday operations. This type of system is more in line with Lovell's element of avoiding micromanagement. Likewise, a board will most likely tend towards shared values and therefore shared preferences (Weingartner, 1996) [Maxims 9, 11, and 13]. This type of behavior is definitely captured in the streams model as well as Lovell's model, but is less indicative of the incremental approach seen in Lindblom's model. Other board qualities are found in the Coordinating Board system of governance.

States using the Coordinating Board (CB) system of governance are "states that have established a state board that functions between the state government (executive and legislative branches) and the governing boards of the state systems" (Education Commission of the States, 1997, p. 11). These CBs differ from the CGBs in that they do not govern, do not oversee the leadership of each institution or the institutions as a whole, and approach the statewide system as their customer versus individual institutions (Education Commission of the States, 1997; Goodchild, Lovell, Hines, & Gill, 1997; Greenberg, Miller, Mohr, & Vladeck, 1997; etc.). The streams associated with Kingdon's model more closely

resemble the methodology used by CBs. These are in essence the organized anarchies revealed by Cohen, March, & Olsen (1972) which is the bedrock of Kingdon's model. Additionally, the coordination required of such a system is well suited to Lovell's model of stakeholder invitation, value congruence, and empowerment. However, the CB methodology seems less conducive to the descriptions of policymaking found in Lindblom's model, especially reliance on theory.

The final system is the Planning/Service Agency. The Planning/Service Agency (P/SA) system of governance relies on goodwill between the legislative branch and the institutions of higher education. Reliance on goodwill is necessary because states using the P/SA system are "states with essentially no statutory entity" (Education Commission of the States, 1997, p. 12). These agencies also "handle student aid administration and institutional licensure and authorization" (p. 12) so the legislators, as with CGBs, may rely more heavily on the P/SA to conduct the everyday operations. This type of system is more in line with Lovell's element of avoiding micromanagement. Like the CB and the CGB, the everyday operations of P/SA are fluid, they are streams as depicted by Kingdon's model. Also, because they are without a statutory entity, they must rely heavily on stakeholder involvement and value convergence for decisions to be made into policy. Lastly, the behavior of a P/SA system is less likely, as with CGB and CB, to be theory reliant as Lindblom's model describes the policymaking process. Over all three systems, Kingdon's and Lovell's model were perceived to be accurate while Lindblom's model was not. The next section is a discussion of

how these eight elements from the three models could come together to form a new, hybrid model.

Hybrid Model

The processes and stages of the hybrid model of higher education public policymaking are displayed in Figure 8 (Attachment H).

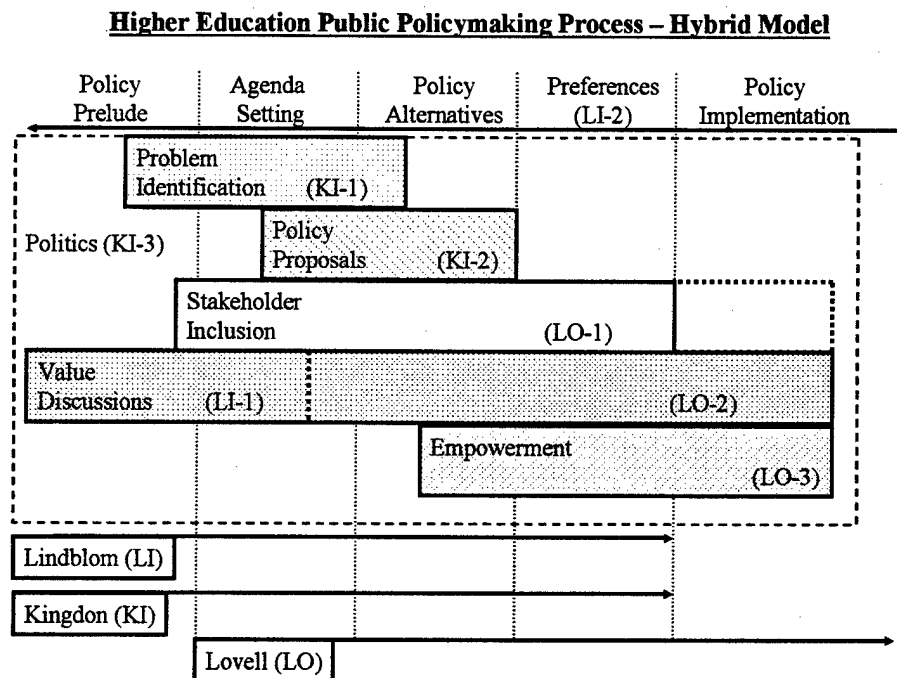


Figure 8. Higher Education Public Policymaking Process - Hybrid Model

The hybrid model suggests that higher education public policymaking is a *political* process of stages. This political process includes the processes of *problem identification* and of solutions (*policy proposals*) leading to selection of a *preferred* policy. This political process likewise demands *stakeholder inclusion* with *value discussions* weaving throughout. Finally, it describes the

policymakers' process of seeking to *empower* policy implementers. The parallel between the hybrid model and each of the three models is indicated at the bottom of the figure with a box labeled with one of the three models and an arrow. The box and arrow indicate which parts of stages and processes in the hybrid model overall are included by the individual model components. Finally, the hybrid model is both a normative (prescriptive) and descriptive model that is useful for academicians and analysts alike. It is prescriptive in that it details how policymaking should occur, as perceived by the respondents and the literature (Almond, 1966; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hatch, 1993; Lasswell, 1948, 1951; Sorzano, 1975). It is descriptive in that it details how respondents perceived policymaking actually did occur.

At the element level, this hybrid model integrates all three elements of Lovell's model, three of the four elements of Kingdon's model and two of the elements of Lindblom's model. Since one of the elements of Lovell's model and one of the elements of Lindblom's model address discussions on values, they are combined into one element for the hybrid model. The stages of problems, politics, and policy processes are from Kingdon's model. They are identifiable as unique stages, but are also processes as well as a series of events in a process. They are streams that flow independent of each other. This hybrid model points out that values are intertwined within the policymaking process and must be addressed early on, as did Lindblom's model. Lovell's model likewise points out that values must be openly discussed. This stage of value discussion and understanding is a golden thread for policymaking. Finally, Lovell's elements of

stakeholder inclusion and empowerment were perceived as accurate and are therefore part of this hybrid model.

The hybrid model suggests that the higher education public policymaking process starts with the political stream. The process of politics operates through the five stages. This process is a uniquely human endeavor that has both rational and irrational components. The political activities within the model allows the researcher to prescribe and describe the culture, structure, and values of the legislature (Sabloff, 1995, 1997; Stone, 1997). Politics also describes how the individuals do and should operate in policymaking, it allows for study of their motives (Fowler, 2000; Johnsrud, Heck, & Rosser, 2000; McGill & Slocum, 1994; Stone, 1997). The politics element likewise addresses the mechanisms for understanding and detailing public interest through the sharing of knowledge. The next element of the model is the discussion of values.

Stakeholders need to understand the values associated with problems and their possible solutions before they can determine congruence with their own value system or the value system they represent. Oftentimes, this understanding comes about through the sharing of knowledge or transfer which Dewey called learning (Dewey, 1916). Values are therefore learned, identified, assessed, and evaluated. The identification and evaluation of values is perceived as an accurate process of policymaking. Likewise, value identification and assessment is conducted throughout the policymaking process as modifications are made to current policy, or new policy is developed. During this modification and development of policy, politics continues to play an important role by becoming

the tool for assessing and evaluating the relative importance of values. The importance of a value likewise affects whether or not a situation is perceived to be a problem, the next element in the hybrid model.

In the problem identification element, a problem is recognized and stakeholders are included. Inclusion of stakeholders necessarily follows problem recognition because all stakeholders cannot be discovered until a problem is fully understood. Overlap with stakeholder inclusion likewise occurs because the problem is refined as stakeholders join the identification element. A cycle of problem identification and stakeholder involvement ensues. Additionally, it is perceived that the gathering of stakeholders is a process that is clear and defined; one might argue that legislative sessions could be considered the time when stakeholders gather. Through stakeholder inclusion, the problem is further refined and then possible solutions or policy proposals are discussed.

During this process of addressing proposals, policies are developed that respond to problems and are vetted by the stakeholders. After the discussion begins on possible policies to put into action, alternatives for empowerment of policy implementers are also discussed. As the problem identification and stakeholder involvement elements form a cycle, so too do stakeholder involvement and addressing proposals. Finally, a preferred policy is selected and then implemented.

Along with clearly identifiable processes, the hybrid model also has five distinct stages which are: (1) Policy Prelude, (2) Agenda Setting, (3) Policy Alternatives, (4) Preferences, and (5) Policy Implementation. In the first stage,

policy prelude, ongoing activities include coalition development, political action committee meetings, etc. These preludes are precursors to the political recognition of problems, inclusion of stakeholders, and review of policy proposals that are the agenda setting stage. During the second stage of setting the agenda, problems are refined, stakeholders are included, and possible solutions are beginning to appear. Next, proposals are examined in the third stage, the policy alternatives stage. These examinations are conducted by the policymakers and the stakeholders. During this stage, value discussions are ongoing and talks about empowerment issues are started. Eventually, the alternatives are reduced to a small enough list that allows for the selection of a preferred policy. In this, the fourth stage, the stakeholders and policymakers, using their value systems, combine efforts to select the best solution for the problem introduced in the agenda setting stage. Once a policy is selected it is implemented, which is the fifth and final stage. However, value discussions and empowerment issues continue into the implementation stage. Likewise, some stakeholders remain as they become the implementers of policy (the dotted line for the Stakeholder Inclusion box in Figure 8 indicates that some of the stakeholders remain while others do not after a policy preference is expressed). The implementation stage is also where some of the activities start that are considered policy preludes. These are the elements of the hybrid model. The hybrid model is also a combination of the systems and stages heuristics (Anderson, 1975; Dye, 1972) of Easton and Anderson.

Easton's system approach argues that public policymaking is the product of a system and that a system is a compilation of both inter-societal and extra-societal (abstract and concrete) components and actors within an environment. The compilation of the components and the actors within the environment form inputs to the problem-solving process—the process Easton called “the political system”—which in turn generates outputs. The inputs are public problems. The outputs are solutions or public policy. In the hybrid model, the outputs are also value discussions and can form new inputs. These new inputs of value discussions and public policy are feedback. As feedback, the new inputs are acted upon by the components, actors, and environment. They also act upon the components, actors, and environment. It is an organic process of feedback.

Easton presented the systems approach as a fully integrated, bounded, open, organic process of policymaking. By organic, the systems approach had a life of its own, influenced by and influencing its environment. The influencing occurred during the application of values to the problems that sought solution. In other words, the policymaking process, as an organic system, sought to adhere to the values present in the system when ascribing solutions to problems. Easton delineates his systems approach further, “several vital considerations are implicit in this interpretation and it is essential that we become aware of them.

- (1) Such a framework assumes that political interactions in a society constitute a system
- (2) The system must be seen as surrounded by physical, biological, social, and psychological environments

- (3) What makes the identification of the environments useful and necessary is the further presupposition that political life forms an open system
- (4) Systems must have the capacity to respond to disturbances and thereby to adapt to the conditions under which they find themselves" (Easton, 1965b, p. 18)

The hybrid model affirms these considerations and is therefore a system heuristic as described by Easton. It also affirms the stage heuristics of Anderson.

Anderson conceptualized policy-making as a series of events occurring in distinct stages and labeled these stages categories. Anderson's five stages of policymaking include: (1) policy identification and agenda formation, (2) policy formulation, (3) policy implementation, (4) policy adoption, and (5) policy evaluation (Anderson, 1975). Anderson saw this stage framework as having a number of advantages. First, he saw the chronology as reflective of the actual process of policymaking. "The sequential approach thus helps capture the flow of action in the policy process" (Anderson, 1975, p. 27). Second, the sequence approach has great flexibility, "it is open to change" (Anderson, 1975, p. 27). Third, the categories reflect a dynamic rather than static system. "Moreover, it emphasizes the relationships among political phenomena rather than simply listing factors of developing classification schemes" (Anderson, 1975, p. 27). Anderson does not ignore the dynamics of the human interaction in the policymaking process. Instead, the categories allow the analyst to narrow their focus of study to a certain step in the process, a step that Anderson distinguishes

with the five categories. Finally, Anderson's framework "is not 'culture-bound,' and it can be readily utilized to study policy-making in foreign policy-making systems (Anderson, 1975, p. 27). Likewise, the hybrid model is sequential, flexible, dynamic, and can be readily utilized. It is a stage heuristic as detailed by Anderson. Along with representing the two heuristics, the hybrid model represents two frameworks.

This process of stages described by the hybrid model is reflective of both the comprehensive rational framework and the bounded rationality framework. This is not surprising since the models in this study were from the two frameworks and the hybrid model is a combination of their elements. Kingdon's model is a revised version of the Cohen, March, & Olsen garbage can model which is a combination of the rational comprehensive and the incremental or bounded rationality frameworks. Lindblom's incrementalism is the direct result of the creation of the bounded rationality framework. Lovell's model can be seen as reflective of the rational comprehensive framework. The rational comprehensive framework is portrayed as a process that is capable of fully analyzing all possible solutions to problems and their impact on the public. The rational comprehensive framework also describes all problems as having an identifiable cause. Lastly, the rational comprehensive framework assumes human behavior to be rational. Incrementalism, or bounded rationality, as a framework describes the policymaking process as incapable of fully analyzing all possible solutions because all solutions cannot be known. Because of this, incremental shifts based on the known solutions are all that remain as viable options for the

policymaker. Also, bounded rationality does not describe problems as having an identifiable cause, it sees cause and effect as cyclic and co-dependent. Finally, the rational comprehensive framework assumes human behavior is not always rational. The rational comprehensive framework admits that irrational behavior is difficult to model.

The hybrid model is a collection of elements, stages, systems, and frameworks combined in such a way as to bring out the best of all models, heuristics, and frameworks. The hybrid model includes eight elements that were perceived as accurate from the three models in this study. Two elements, from the original three models, are virtually the same, therefore reducing the hybrid model to seven elements: (1) Political Stream, (2) Problem Identification Stream, (3) Policy Proposals Stream, (4) Stakeholder Inclusion, (5) Value Discussions, (6) Preferences, and (7) Empowerment. The hybrid model is also a system of five stages: (1) Policy Prelude, (2) Agenda Setting, (3) Policy Alternatives, (4) Preferences, and (5) Policy Implementation. As a system, the hybrid model assumes: (1) political interaction constitutes the policymaking system, (2) the policymaking system is bounded, (3) the policymaking system is open, and (4) systems adapt therefore the policymaking system is organic. Also, it is a compilation of two frameworks, the rational comprehensive and the bounded rationality. These frameworks describe policymaking as a problem solving process that examines problems, analyzes solutions, and is a human endeavor that when rational, is open to modeling.

This hybrid model gives researchers an additional diagnostic tool for modeling and analyzing higher education public policymaking. This model has five valuable properties. First, the hybrid model is based on observations (Lasswell, 1948, 1951) and is therefore descriptive. The hybrid model accounts for perceptions of observed behavior on how policymaking happens, for what the policymakers were perceived to do. "To account for what people do it is necessary to describe their environment in two ways: as surroundings and as milieu. By surroundings we mean what the outside observer sees whether the people who are there see it" (Lasswell, 1948, p. 284). The description of the surroundings emanate from the literature and from the survey responses of the SHEEOs. "The milieu, on the other hand, is what comes to the focus of the members of a great power. The same surroundings do not always evoke the same milieu" (p. 285). The LECCs described the milieu. Additionally, the surroundings and the milieu were not in agreement at times, supporting Lasswell's contention of the need to describe both. By accounting for what the legislators were perceived to be doing, the hybrid model could therefore replicate the behavior with more accuracy. Responses to the survey took into account the observations of those who were outside the process (SHEEOs) and those who were members of "a great power", the legislators (LECCs). Both groups understand policymaking, and both groups have slightly different viewpoints. However, in combination, their responses point out that the hybrid model could be perceived as a very accurate description of observed behavior.

Second, the hybrid model is an inclusive blending. The hybrid model includes the elements of the three models already tested for their perceived accuracy in describing legislative behavior (Hartmark & Hines, 1986; Howlett & Ramesh, 1995; Nagel, 1975a; Sabatier, 1999). Likewise, the hybrid model takes into account policy science research since its inception as a field of study (Almond, 1966; Bowen, 1977; Braybrooke & Lindblom, 1963; Dror, 1971; Easton, 1965b; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hofferbert, 1974; Lasswell, 1951; Lindblom, 2002). By blending the elements of models already tested for their perceived accuracy in describing legislative behavior with the research of policy scientists, the hybrid model increases its likelihood that it will be perceived as accurate and survive as a description of the policymaking process. Sabatier (1999) likened blending to a Darwinian process of survival of the fittest in searching for and finding a simple way to describe a complex process, that of policymaking within the field of political (policy) science. "The history of political science is one of gradual encroachment of ideas rather than the sequential building of scientific upon scientific study" (Garston, 1974, 1505). This hybrid model supplements both the encroachment of ideas and the sequencing of scientific study. It does so through an evolutionary thought process that blends. The evolution of this hybrid model "contributes to the development of policy science by providing a much better understanding of why governments chose to do what they do or do not do" (Howlett & Ramesh, 1995, p. 14).

The evolution evident through blending in this hybrid model has been ongoing. "Over the past four decades scholars and analysts working towards developing a policy science had addressed a series of related questions about policy process" (Howlett & Ramesh, 1995, p. 12). The hybrid model is therefore inclusive by taking into account policy science research since its inception as a field of study and coupling this research with the blending of models already tested for perceived accuracy. It prescribes and describes legislator behavior.

Third, the hybrid model is heterogeneous by combining frameworks and heuristics (Almond, 1966; Bowen, 1977; Braybrooke & Lindblom, 1963; Dror, 1971; Easton, 1965b; Howlett & Ramesh, 1995; Lasswell, 1948, 1951; Morris, 1967; Nagel, 1975a; Sabatier, 1999), therefore making it generalizable and flexible (Anderson, 1975; Lindblom & Woodhouse, 1993; Sabatier, 1999). The hybrid model is heterogeneous by combining frameworks. The higher education public policy research community was tasked by Hartmark & Hines (1980) to examine the frameworks, theories, and models currently in use. They sought an examining of models for salient aspects, aspects worth keeping in the study of policymaking. This hybrid model does that for three models, two frameworks, and the two heuristics.

As discussed earlier, this model brings together the best of the rational comprehensive and the bounded rationality frameworks. Specifically, it takes the idea of comprehensive analysis of problems and tempers it with the bounded rationalist framework by accepting human limitations of time and knowledge that are overcome through the invitation of stakeholders. The hybrid model also

accommodates the irrational behavior that is human by encompassing the stages in a political arena, from Kingdon's streams. Along with being a good combination of systems, the hybrid model also uses the best of Easton's systems heuristic and Anderson's stages heuristic. Finally, the hybrid model also details how policymaking ought to occur (normative—prescriptive) and how it is perceived to occur (descriptive). By being both prescriptive and descriptive, the model also has appeal to academicians and practitioners (policy analysts) alike as a diagnostic tool.

Fourth, the hybrid model is also reliant on feedback for effective and efficient description of the policymaking process. Feedback can occur at any stage but is best characterized in the values discussions stage. The reliance on feedback is the mechanism for organic behavior. Additionally, the hybrid model is fully integrated, bounded, and open (Easton, 1965b). The model is bounded by the political element, but it integrates all other stages into a system that is open to the consideration and deliberation on problems and solutions (policy). The hybrid model is likewise sequential, flexible, dynamic, and can be easily utilized (Anderson, 1975). Working from left to right, a user of the model can immediately see the sequential nature. However, the sequences overlap creating flexibility to the structure. A user of the model can likewise immediately see the process nature through element overlap. Additionally, as with the feedback mentioned in the systems heuristic, the model is dynamic.

Finally, with few elements, the model is also easy to use. A model that is easy to use, and accurate, is more likely to be used. Likewise, it would be more

useful as a diagnostic tool. Through the use of this model, many research endeavors could come to fruition. In turn, these research endeavors would generate additional data for consideration in higher education public policymaking analysis.

While the analysis of the data usually separates the information into categories or reports on the sub-populations, the aim is towards a generalized understanding of phenomenon of interest (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). Researchers want thrift in their data collection. They want to gain the greatest amount of understanding using as few variables as necessary (Babbie, 1990; Dillman, 2000; Hyman, 1951; Likert, 1951). The hybrid model lends itself well to gathering general data on policymaking. However, as it is also flexible, it could be used to gather very specific data on a stage or portion of the process of policymaking.

The utility of the model in generating and assisting in the analysis of data reveals its heterogeneous state. By heterogeneous this model is a combination of elements and attributes. It combines the elements of the rational comprehensive and the bounded rationality frameworks. Likewise, it combines the elements of the systems and stages heuristics. Finally, the prescriptive and descriptive attributes of models are combined in this hybrid model. The heterogeneous nature of the hybrid model also makes it both generalizable and flexible.

Finally, the hybrid model is supportive of inquiry (Almond, 1966; Bowen, 1977; Braybrooke & Lindblom, 1963; Dror, 1971; Easton, 1965b; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hofferbert, 1974;

Lasswell, 1948, 1951; Lindblom, 2002; Lindblom & Woodhouse, 1993; Morris, 1967; Nagel, 1975a; Sabatier, 1999). As a diagnostic tool, the hybrid model supports the investigation of policymaking overall or at certain junctures. Also, the hybrid model affords researchers the opportunity to examine the processes involved in policymaking. Likewise, the analysis of both the policy and the policymaking processes and stages give insight to both the academician and analyst. Combined together, these supportive aspects of investigation, examination, and insight show the model to be accommodating of inquiry.

Earlier descriptions explain how the model is based on observations of behavior and perceptions of behavior, the first of the five valuable properties of the hybrid model. Second, it is an inclusive blending of tested model elements along with the research of policy sciences. Third, the hybrid model is also heterogeneous in that it combines elements and attributes of the literature and the results of this study on perceived accuracy of models. Fourth, the hybrid model is reliant on feedback making it reflective of the organic nature of policymaking. Finally, the hybrid model is a useful diagnostic tool in that it lends itself well to data generation and analysis, is generalizable and flexible, and is supportive of inquiry into policymaking and the resultant policy.

Policy science seeks to orient itself to the discovery of real-world solutions to real-world problems “and not engage in purely academic and often sterile debates that, for example, characterized interpretation of classical and sometimes obscure political texts” (Howlett & Ramesh, 1995, p. 3). Problem solving, for policy science and its analysts, needs to be grounded in reality in the

search for what is happening. Its models must be supportive of this inquiry method. If policy science is to be an applied science with practical and tangible recommendations for solving problems, it must have a model that supports inquiry. (Anderson, 1975, 1990; Dror, 1971; Bowen, 1977; Birkland, 2001; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Heller, 2001; Lindblom, 1959, 1968, 1979, 1982; Lindblom & Cohen, 1979; Kingdon, 1995; Linder & Peters, 1990; Lovell & Gill, 1997; Lowi, 1964, 1970, 1972; Lutz, 1988; Mazmanian & Sabatier, 1981; Sabatier, 1999; Theodoulou & Cahn, 1995; Thompson, Ellis, & Wildavsky, 1990). This hybrid model has the characteristics called for by the early policy science pioneers in modeling and the elements of models tested for perceived accuracy in this study. By being based on observations of behavior and perceptions of behavior; blending the elements of models already perceived as accurate into an inclusive model; taking into account the research of the past decades, combining frameworks, heuristics, and models into an heterogeneous model; maintaining sufficient feedback to ensure responsiveness to the organic nature of policymaking; and establishing its utility as a diagnostic tool; the hybrid model is purposefully designed to support inquiry into higher education public policy. What remains is to test the model formally using the methodology presented in this study.

Summary

This study examined the perceived accuracy of three models, and their elements, reflected in the higher education public policymaking process of state legislators as reported by State Higher Education Executive Officers and the state Legislative Education Committee Chairpersons. This chapter began with an overview of the study followed by the presentation of the data analysis results. The results showed that with regularity Kingdon's and Lovell's models were not statistically significantly different and that Lindblom's model mean was lowest. This research disclosed that Kingdon's and Lovell's model were perceived as accurate, and that Lindblom's model was not when using a value of 4 to determine the cut-off for perceived accuracy during the time frame of this study. Additionally, the researcher was interested in determining if differences between response groups existed. Between respondents along lines of major policy issue some different patterns were found. SHEEOs responses for the models along the major policy issue of accountability were not statistically significantly different for Kingdon's and Lovell's models and for Lindblom's and Lovell's models. Yet, LECCs responses report that Lindblom's model was considered accurate in total and across the three major issues of policy. A number of possible reasons for the similarities and differences within and between the models and respondents were discussed.

First, Kingdon's and Lovell's models were perceived as flexible enough to account for the untidiness that is public policymaking while Lindblom's model was perceived as a compulsive set of stages. Second, it was perceived that

Kingdon's model and Lovell's model were inclusive of stakeholders through a political process. Third, respondents perceived that open discussions of values occurred as part of policymaking but that these value discussions should occur early on. Finally, internal thought processes were not easily modeled nor were the modeled internal actions perceived as accurate whether it was in the guise of a window of opportunity or the form of theorizing about policy. In addition to similarities discussions on similarities and differences, a hybrid model was suggested.

The hybrid model was described as a political process of stages. It was shown to be a fusion of the elements that were perceived as accurate from the three models under study. This hybrid model was detailed as both a system and a stage model with seven elements in five stages. It was also described as a combination of two frameworks, the comprehensive, rational framework and the incremental framework. While the research did suggest a hybrid model, and the model was detailed, it was not tested in this study.

In the next, and final, chapter is the summary of this dissertation. After the summary and conclusion sections are the researcher's interpretations of this study. Next are discussions of new findings and their implications. Following that is a description of the theoretical significance of the research and the hybrid model. Afterwards, the limitations of the research are illustrated. The final chapter concludes with recommendations for future research, significance of the study, and the personal reflections and observations of this researcher.

CHAPTER FIVE

SUMMARY AND CONCLUSION

Starting where the research pioneers left off, this dissertation shows model testing to be a crucial aspect of research into public policy in higher education by developing and using a systematic method for testing three public policymaking models. This method used a survey to elicit responses from higher education policymaking experts and relied on content analysis of the models for survey item construction. Once constructed, the surveys were sent to State Higher Education Executive Officers and state Legislative Education Committee Chairs. The survey responses were used to determine the perceived accuracy of the three models under test. As well as testing the three models, the researcher developed a hybrid model which is both normative and descriptive of higher education public policymaking. Therefore, this dissertation addressed and should put to rest skepticism about the accuracy of models, can help in establishing a method for testing the accuracy of future models, and offers a new model for use in research into public policy in higher education.

This chapter starts with a restatement of purpose for the study. A summary and conclusion of the research and analysis follows. A brief discussion of new findings and their implications for the advancement of knowledge on models and model testing in higher education public policy is then presented. Next are the theoretical significance of the research and results, and the

limitations of the research. This chapter concludes with recommendations for future research, significance of the study, and the personal reflections and observations of this researcher.

Purpose for the Study

The purpose of this study was to assess the accuracy of three models and by doing so establish validation procedures for future models. It is important to note that this study is a redress of the shortfall that resulted from incomplete work by policy science pioneers on the testing of frameworks, theories, and models. While it is important to note that this dissertation is a redress of the shortfall it goes beyond simple testing of three models. **This dissertation provides an objective baseline for future model testing, an important final step before a researcher publishes their model.** This dissertation advanced knowledge by serving as the foundation for the much needed quantitative, empirical testing of models, theories, and frameworks. It adds to the paucity of information and knowledge in the area of model testing within higher education public policy research. In addition, it initiates the movement to correct the absence of inquiry into the basic theoretical assumptions regarding public policy and higher education, assumptions with regards to major issue of policy, regional compacts, and systems of governance through rigorous testing.

By submitting to rigorous testing, a model enhances both its reliability (ability to measure what it purports to measure), validity (an ability to accurately measure), and viability (practicality as a research tool). A tested model is less likely to be the focus of discussion in future research. Rather, the procedures and

results of analysis will come under scrutiny. Instead of consternation over the model, discussion related to the outcome of research will advance theory and practice. What follows is a summary and conclusion of this dissertation that supports the claims just mentioned.

Summary and Conclusion

This section describes how the dissertation responded to the literature by testing three models of public policymaking. It tested the models across the three major issue areas of higher education public policy through a rigorously and empirically developed survey. It also proposed a hybrid model developed from the analysis in this research. This section describes how the dissertation tested the models as accurately or inaccurately reflecting the higher education public policymaking process by surveying the perceptions of State Higher Education Executive Officer and Legislative Education Committee Chairpersons. It also shows how, from the responses to the survey, this dissertation discovered the accuracy of the model across major issues of higher education public policymaking, regional compact, and system of governance in answering the research questions in this study.

This study tested the perceived accuracy of three models of public policymaking [specifically, Kingdon's Multiple Streams (1995), Lindblom's Bounded-Rationality (Incrementalism) (1959), and Lovell's Three-Tier Taxonomy (2001)]. These models were tested as they apply to three major issues of higher education public policy: access, affordability, and accountability. In

addition, this dissertation used the time frame of 1996-2002 and delineated the states by regional compact and system of governance. The framework for the collection and analysis of the data responded to the four research questions: (1) which model was perceived as accurately depicting how policymakers produced higher education public policy? (2) Which model was perceived as accurate along major policy issue areas? (3) Which model was perceived as accurate along lines of regional higher education compacts (MHEC, NEBHE, SREB, or WICHE)? (4) Which model was perceived as accurate along lines of systems of higher education governance (Consolidated Governing Board, Coordinating Board, Planning/Service Agency)? A survey was used to elicit the opinions of each of the State Higher Education Executive Officers (SHEEOs) and State House and State Senate Legislative Education Committee Chairs (LECCs).

Data collection from the survey included three stages, two for the refinement of the instrument (a panel of experts and a study group) and the final stage culminated in the distribution of the survey through a variety of means to the primary respondents. Data collection from the primary respondents spanned seven months from October 2002 to April 2003 with response rates of 71% for SHEEOs and 50% for LECCs for an overall response rate of 58%. Data were then analyzed beginning with item reliability. A criterion of Cronbach's alpha greater than .5 was established. The results of the data analysis show Cronbach's alpha to be above .9 which is an impressive result.

Following the item analysis the model mean scores were calculated. Overall, Kingdon's and Lovell's models were not found to be statistically

significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking. Lindblom's model was found to be statistically significantly different in perceived observed frequency of behavior of legislators in higher education public policymaking from both Kingdon's and Lovell's model with a lower mean than both. Kingdon's and Lovell's models were perceived as accurate in this study while Lindblom's model was not. These three models were assessed along lines of major issue of policy, regional compact, and system of governance. The models did not vary based on these elements. The perceived accuracies and inaccuracies noted in this dissertation offer researchers sound, rigorous options for using models in conducting research on public policy in higher education.

This section described how three models were tested against three primary elements of major issues of policy, regional compacts, and systems of governance. The results of the research found that variations do not exist along these primary elements, that the models perform consistently across major issues of policy, regional compacts, and systems of governance. Ultimately, the model testing conducted in this dissertation established that both Kingdon's and Lovell's models were perceived as accurate and were not statistically, significantly different from each other. However, Lindblom's model was perceived as inaccurate for this study and was statistically, significantly different from both Kingdon's and Lovell's models. Other findings and implications are discussed in the next section.

New Findings and Implications

This dissertation refocused attention on model testing that was called for by policy science pioneers. It also advanced a hybrid model for future testing. The three models tested address the unique nature of higher education public policy. It does so by discovering the elements of major policy issue area policymaking (Bailey, 1997; Burd, 1998; Danforth, 1984; etc.), regional compacts (Adelman, 1999; Association of Governing Board, 2002; Berdahl, 1990; Bloland, 2001; etc.), and systems of governances (Association of Governing Board, 2002; etc.) on policymakers. As reported, policymakers are ultimately responsible to society for good higher education public policymaking and these models accurately reflect their behavior. In this section is a discussion of each model, reasons for the scores, and the implications.

Kingdon's and Lovell's models were perceived as accurate in this study while Lindblom's model was not. First, Kingdon's three streams of problems, policies, and politics were perceived as accurate descriptions. Second, all three of the elements of Lovell's model—inclusion, discussions of values, and empowerment—were perceived as accurate. Third, two elements of Lindblom's model—preference for good policies and reliance on values—were perceived as accurate descriptions of the policymaking process assessed in the time frame of this study. Fourth, Kingdon's opportunity window was not perceived as an accurate description of policymaking. Finally, Lindblom's ideas that policymakers do not rely on theories or that policymaking is incremental were not

perceived to be accurate descriptions of policymaking. There are several reasons for these perceptions.

Kingdon's model provides "room for residual randomness, as is true of the real world" (1995, p.222). Kingdon used three streams to define the stages of problem identification, policy development, and political activities. These streams are "structured in the same sense that a river is fluid, but its banks usually restrict its movement" (p.223). The fluidity of the model lends itself well to the dynamic and organic nature of policymaking (Anderson, 1975; Fowler, 2000) while still providing a structure for examination and assessment in much the same way the flow of a river is restricted by its banks. Problems exist in society and the mechanisms for bringing attention to these problems are many. The respondents are familiar with the multitude of ways in which problems are brought forward, and Kingdon's model sufficiently describes that process. Likewise, the development of a policy is moderately structured, but is also fluid and dynamic. Respondents understood the dynamics of policy development as described by Kingdon's model and perceived them to be accurate details of policymaking. As regards the politics stream, Kingdon's model can account for the growth of special interest groups in the creation of legislation, the high pitch of 'crisis mongering' within the political arena of today, and the equally high degree of variability within the behavior of heterogeneous legislative bodies (Cohen, March, & Olsen, 1972; Crosson, 1984; Dye, 1972; Fowler, 2000; Gerston, 1997; Kingdon, 1995, 2002; Lerner & Lasswell, 1951; Sabatier, 1999; Theodoulou, 1995). In addition, Kingdon's model considers the process of politics as

responding to a cry for consensus on issues, a pattern of behavior observable in policymaking today as well (Berdahl, 1990; Fowler, 2000; Heller, 2001). Where respondents may not have perceived Kingdon's model as accurate was in the area of opportunity windows. Again, because the coming together of the three streams may occur internally as an intellectual action, it was difficult for Kingdon's model to adequately portray this process, especially with as much structure and detail as the three streams. The respondents did not perceive this opportunity window aspect of Kingdon's model as an accurate depiction of legislative behavior in higher education public policymaking.

Lindblom's model is a reflection of the time-frame surrounding the creation of the model. At that time, values were considered more clearly understood, the public had greater agreement on values, time was not judged as a limiting factor rather, and the restrictions on time induced incremental shifts in policymaking (Dye, 1972; Easton, 1965b; Heller, 2001; Lindblom, 1959, 1965, 1968, 1977, 1979, 1982, 2002). Respondents in this study did not perceive that values are clearly stated in current policymaking environments. Values are at odds with each other (Burns, Peltason, Cronin, & Magleby, 1998; Fowler, 2000; Heller, 2001). Additionally, Lindblom designed the model at a time when cost-benefit-analysis, measured responses, and reduced rate of information flow coupled with reduced budgets were more common (Lindblom, 1959, 1979, 2002). In other words, time was less restrictive and fewer 'crises' existed allowing for a more restrained, deliberate legislative process. The cost-benefit analysis models in use now upon which many of Lindblom's assumptions were based have

changed. Also, information moves at an incredible speed and therefore deliberation is shortened. Regional compacts are prevalent, as are institutions in direct support of policymaking across the states such as the NCSL. Increases in political action committees (PACs) and their influences, coupled with activists centered at the grass roots level, make the policymaking environment of the late 1950s very different from the environment of the late twentieth century when Kingdon and Lovell produced their models. While Lindblom's model accounts for the limitation of time in an examination of the issues, this results in incrementalism as the process for policymaking. Incrementalism is perceived to be less of a factor in the observable behavior of legislators in the time frame under study in this dissertation. It was perceived as an inaccurate description of policymaking. Lindblom's model was designed to address policymaking in an environment different from today. Respondents did not perceive Lindblom's model as accurately depicting higher education public policymaking.

Lovell presented the three-tier typology as a way to measure whether or not public policy in higher education was good (Lovell, 2001, 2002, 2003). To that end, Lovell presents a more conciliar model that includes the many stakeholders and the many values inherent in policymaking (Crosson, 1984; Dye, 1972; Fowler, 2000; Lerner & Lasswell, 1951; Lovell, 2001, 2002, 2003; Sabatier, 1999; Theodoulou, 1995). Respondents perceived that Lovell's model was purposeful and that it provided flexibility in detailing the need for all stakeholders to participate in higher education public policymaking. Inclusion assures the problem is fully framed to the comfort level of all involved ensuring a

higher level of success. Second, by considering all possible values at play, whether or not all stakeholders were invited to the policymaking (problem-solving), the possible solutions and selection of an outcome are enhanced. Finally, by ensuring the appropriate level of empowerment (avoiding micromanagement) the solution/public policy has the highest likelihood for success. This is because the entity with the most direct responsibility for success maintains that responsibility. Taken in total, inclusion, shared values, and level of empowerment provided a solid model for public policy in higher education. It is a model that provides an excellent tool for researchers and that respondents perceived as accurate.

Although this dissertation sought to go beyond the simple testing of three models, it also sought to provide a baseline for future model testing. There are several broader implications of this dissertation to higher education public policy research. This study responded to the need to test models and advances knowledge in that area (Almond, 1966; Barzun, 1963; Blum, 1992; Bowen, 1977; Braybrooke & Lindblom, 1963; Crosson, 1984; Dror, 1971; Easton, 1965b; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Hatch, 1993; Hofferbert, 1974; Lasswell, 1951; Lincoln, 1986; Lindblom, 2002; Sorzano, 1975). While higher education may have made the call for model testing, it still has not begun rigorous testing of the models developed to date or currently in use. A number of models exist today that are worthy of testing. This research is the corrective and serves as a baseline for future model testing in higher education

public policy. The literature points out the need to test (Almond, 1966; Barzun, 1963; etc.), and this dissertation describes a methodology for doing so.

This dissertation serves as a baseline for future model testing because it responded to the literature by testing three models of public policymaking across the three major issue areas of higher education public policy through a rigorously and empirically developed survey. The dissertation tested the models as accurately reflecting the higher education public policymaking process by surveying State Higher Education Executive Officer and Legislative Education Committee Chairpersons for their perceptions. The dissertation sought the SHEEOs and LECCs opinions because of their status as experts in higher education public policy and proximity to the policymaking. From the responses to the survey, this dissertation discovered the accuracy of the models across major issues of higher education public policymaking and answered the research questions. The questions sought to determine if the three models or elements of the models selected for this dissertation accurately reflect the process for making higher education public policy as reported by the perceptions of the SHEEOs and LECCs. The data show that Kingdon's and Lovell's models were perceived as accurately reflecting the higher education public policymaking process. Therefore, this dissertation advances knowledge in the field of higher education public policy thorough testing of three models and does establish a baseline for future testing through example.

While the broader implications of this dissertation are evident, this dissertation explains that it will behoove researchers to consider using both

Kingdon's and Lovell's models in future research on public policy in higher education because of their accurate portrayal of the behavior of legislators in public policymaking in higher education across all the elements. In the end, a tested model is less likely to be the focus of discussion in future research. Rather, the procedures and results of analysis will come under scrutiny. Ultimately, this is where researchers ought to be able to focus their attention. The next section discusses the theoretical significance of future study into testing models used for higher education public policy research.

Theoretical Significance

This dissertation provided an objective baseline for future model testing, an important final step before a researcher publishes their model. It also starts to correct the profound absence of inquiry into the basic theoretical assumptions regarding public policy and higher education (Almond, 1966; Barzun, 1963; Blum, 1992; etc.). This dissertation adds to and advances information and knowledge in the area of model testing within higher education public policy research. Finally, this dissertation serves as the foundation for the much needed quantitative, empirical testing of models, theories, and frameworks.

This dissertation may lead the way for future higher education public policy models by describing a methodology for model testing that enhances reliability, validity, and viability (Ashby, 1970; Almond, 1966; Barzun, 1963; Blum, 1992; etc.). Without thorough testing of a model it is merely speculative, or at best a culmination of anecdotal data that appear to fit a pattern (Ashby, 1970,

Ostrom, 1999, Rapoport, 1958; Schlager, 1999; Stogdill, 1970). By submitting to strenuous testing, a model enhances reliability, validity, and viability. The ability of a model to measure what it purports to measure demands rigorous examination of the elements of the model, how the elements are presented, and how accurately they reflect reality. Therefore, this researcher developed an assessment of the models with carefully constructed survey questions and an eye towards a more thorough understanding of perceived accuracy of the models in reflecting the policymaking process. This started with a content analysis of the models which is an important first step to ensuring their accuracy. The content analysis discovered the elements of the models through heavily reliance on the literature review and conversations with the authors. For this study, the content analysis of the three models involved three simple stages: (1) examination (2) categorization; and (3) presentation. Use of this framework for future content analysis will add rigor to model testing as an accurate, simplified representation of a complex process or system that is reliable.

At the crux of this study was the examination of a model's validity, or its ability to accurately measure the behavior of legislators in higher education policymaking. This dissertation provides a road map for future models by describing a methodology for model testing that enhances validity. As mentioned earlier, this process starts with the content analysis. In the content analysis for this dissertation a path was made for future model testing. The validity is enhanced through rigorous instrument development and robust response rates.

What remains for a researcher or model developer is an examination of the viability of the model.

A model must have practicality as a research tool. It must be useable in the variety of environments it asserts to model and it must be viable. This dissertation provides future researchers of higher education public policy a methodology for model testing that enhances viability. It does so by describing how to adjust the elements of the instrument to test the specific areas under study. For example, this study asked the respondents if they observed a specific behavior (element of the model) when legislators performed a specific act (area under study) of major policy issue under examination. Using the same methodology in instrument development should ensure similar success in model testing. An item on the instrument that does not measure high enough is less likely to be an accurate representation of the model. Likewise, a model that fails to score high enough is less likely to be an accurate model.

In addition to the work on model testing, this dissertation also exposed the problems associated with survey research on a group across a large geographic area. Likewise, it revealed difficulties with surveying groups with restricted access and a small sample size. The response rate from the LECCs differed with the response rate from the SHEEOs and tells an interesting story (Babbie, 1989; Christenson, 1975; Dillman, 1978, 2000; etc.). While both the SHEEOs and the LECCs operate in the same relative policy environment, the availability of the LECCs (due to their legislative sessions) makes them less accessible. This is reflected in lower response rates. The method employed in the survey research to

enhance response rates (cover letter, directions, descriptions, etc.) is based on the literature on survey research and design methodology (Babbie, 1989; Dillman, 1978; Goyder, 1986; Leitner, et.al., 1979; Schleifer, 1986; Zusman & Duby, 1984). The high Cronbach's alpha found in this study shows how important the work of content analysis, panel of expert review, and study group testing of a survey becomes. While the response rates for LECCs might be questioned, the rigor applied to the survey brings a robustness to the responses that otherwise would not be present. Certainly more responses would likewise add to the robustness. However, high Cronbach's alpha gives this dissertation the opportunity to make bold statements in support of the desired outcome and the literature (Cronbach & Snow, 1977; Gall, Borg, & Gall, 1996).

The theoretical significance of this dissertation includes a remedy to the testing by policy science pioneers on frameworks, theories, and models. It provides an objective baseline for future model testing before a researcher publishes their model. Finally, it enhances the theories of modeling and supports future research by demanding—and itself modeling—a process for rigorous model testing. This dissertation serves as the foundation for the much needed quantitative, empirical testing of models, theories, and frameworks. While the dissertation does accomplish much, it still has limitations which are the subject of the next section.

Limitations of the Study

Limitations to this research fall into three broad categories. First, there were limitations associated with data available for the researcher. Second, limitations were associated with the methodology. Finally, limitations were associated with the respondents. This section describes each category and describes possible mitigations.

Since this study was a unique first attempt, the data related to model testing in the field of higher education public policy was paltry at best. Recommendations from a half century ago went neglected and data from other associated fields of study was necessarily required. Tying the different fields of higher education, public policy, and model testing together was demanding and required significant discovery and background research. As the volumes of reference materials attest, this research cast a wide net to capture a few significant fish. The time involved in searching out those relevant few texts were invaluable in formulating questions for the model authors and in creating items for the survey. As both the panel of experts and study group comments, along with the item analysis attest, the background research led to the development of strong items on the survey. The limited data on model testing further ensconced in this researcher the belief that model testing was very necessary and ultimately would be extremely valuable to the field of higher education public policy studies. While the data available did reveal a great deal about the formulation of the instrument, the instrument itself revealed a great deal about the focus of the research. The data analysis did provide answers to questions for this research.

However, these answers were gathered despite limitations of the instrument and the methodology associated with data collection. This is the third limitation.

The main instrument limitations of methodology included response effects such as primacy, duration of the survey, and structure or placement of questions. Responses may be effected by primacy, or the possible lessened reliability of the last questions based on fading respondent attention. To counteract the effects of primacy on the instrument, this dissertation could have provided respondents with different forms of the instrument, each with a different major issue grouping first. To ensure complete assessment of the effect of primacy, each of the instrument forms would need to consist of too many forms of the instrument for manageability. The problems associated with creating the many forms of the instrument necessary, to include the complexity and the possible data entry errors, as well as analysis errors that might result, outweighed the benefit associated with assessing the effect of primacy. The effect of primacy is a possible limitation to the study (Babbie, 1990; Backstrom & Hursh-César, 1981), but not of significant concern for this study.

Another limitation of the study may have been the number of items on the survey. This may have contributed to a "no response" in some cases. Without interviewing non-respondents, this researcher cannot gage the effect of survey length on non-responses. However, information from the comments portion of the demographics pages mention the length of the survey as a limitation. Additionally, a few e-mail responses to the initial invitation described the

limitations of time and the survey length as contributing factors to non-participation in the research. The need for a thorough examination of the model drove the number of items. Also, using three models in the survey added to its length. The limitations of survey length were mitigated by the placement of questions in groups associated with major policy issue versus the early structure of items by model and by major policy issue. Original plans for the structure of the instrument had the items grouped first by model and then by major policy issue. This grouping made a demand on the respondent to flip-flop between issues. This caused a lack of clarity in examination which, the panel of experts reported, detracted from the survey, creating a limitation. Grouping the questions by major policy issue and not identifying the questions by model (even though they were sub-grouped this way) kept the flow of the instrument unhindered.

No matter how clear or short it could have been made, participants still needed to reply to the instrument for it to be of any value. The limitation on and of the respondents is the fourth limitation of this study. Using respondents across all fifty states, and using a complete population (SHEEOs) and complete sub-population (LECCs) limited the analysis. This demanded a higher response rate without the use of random or semi-random sampling, as well as forced reliance on a small sample size. In addition, the time allotted by legislative respondents to their legislative duties may have been reduced because of the voluntary or part-time nature of their legislative positions. Time constraints were also of issue for some full-time legislators (Sabloff, 1995). Of similar concern to part- and full-time legislative positions is the timing and length of session. While the surveys

were mailed later than originally desired, they were all sent during the various legislative sessions. This ensured maximization of the contact with LECCs. In addition, the perceived poor relationships between academe and the legislatures may have been an underlying limitation (Adelman, 1999). However, mitigating this risk was the fact that legislators who chaired the education committee were selected. Their bias in favor of higher education policy and perhaps against legislators who opposed higher education policy might have limited their objectivity. Since this survey sought their opinions, the bias is understood as a limitation and as a bolster to the outcome.

The primary limitation to respondents was originally thought to be the tenure of the State Higher Education Executive Officers and Legislative Education Committee Chairs working with higher education public policy. Tenure of the SHEEOs and LECCs could directly affect their ability to report on policy based on their familiarity and background with higher education public policy and policymaking. Contrary to initial thought, the tenure of SHEEOs was higher than that of the LECCs. SHEEOs were in position an average of 8.04 years while LECCs were in position an average of 4.57 years, as reported in the demographic section of the surveys. Most LECCs were not first-term members of their respective legislative chambers and were therefore presumed by this researcher to have direct, first-hand knowledge of higher education public policy in the past six years. However, term-limits initiatives could have affected the expertise an LECC could acquire through experience (Ruppert, 2001). Granted, the staffs for Legislative Education Committees can provide historical support to

the LECCs as necessary, but the survey was nonetheless the observations of the LECC. While the respondent limitation was addressed last here, it is certainly not the least concern. Future research into legislative responses to higher education policy research might prove not only interesting but enlightening.

This section described the three broad categories of limitations to this research. These limitations were: data availability, methodology, and the respondents themselves. While recognized as limitations, mitigation of these limitations in future research requires rectification and is the topic of the next section of this chapter.

Recommendations for Future Research

The work is not complete on model testing. This study proposes five categories of future research recommendations. These include recommendations related to survey research methodologies for legislators, recommendations for survey research in general, recommendations from the survey respondents, and finally recommendations on model testing, especially higher education public policy. Additionally, testing of the hybrid model is a recommendation for future research as well as determining if a fundamental shift occurred in frameworks by the finding in this study that incrementalism is not longer perceived as accurate.

Legislators as a response group are difficult to encourage into participation based on two primary factors: the time they have available for participation and their actual expertise in an area. Whether they are part-time or full-time

members, they must contend with busy schedules as well as the matter of constantly working towards their re-election (Fowler, 2000; Sabloff, 1995). Term limits may affect the number of times they run for office, but the fact remains that they must put energy into re-election (Blanco, 2002; Lovell, 2002). In contacting legislators and their staff offices, it was discovered that legislators tended to offer their time first to those who were instrumental in their elections, then to those in their district, and finally they offer their time to those who seem to have a worthwhile cause. Responding to surveys is even lower on their list of priorities and is not often seen as a worthwhile cause. Additionally, because of the capitalization of legislative work on the legislators' time, even if a project is seen as worthwhile it may not get attention because only so much can be accomplished in a given time period. Outside of that term, perhaps in the time period when a legislator is not in session, the restrictions may be lessened. Research into legislative response patterns would considerably help researchers who intend to query legislators. Additionally, legislators in the LECC position are assumed to have sufficient background in higher education to make them experts in higher education legislation. Some respondents reported their background in higher education and their degree (Ph.D., Ed.D., and MA in Education for LECCs and twenty-two of fifty SHEEOs with Ph.D.s in Higher Education, Political Science, and Public Administration along with Ed.Ds). Further research could come in the form of additional questions on the demographics page of the survey to determine field of study and degree attained.

The recommendation for additional questions in the demographic portion leads into the second category of this section, recommendations for survey methodology in general. Research into survey methodologies is replete. A number of trend lines seem to indicate a change in patterns of respondent behaviors and opinions (Babbie, 1989; Dillman, 1978; Goyder, 1986; Heberlein & Baumgartner, 1981; James & Bolstein, 1990; Leitner, Meyers, Chang, Sardeson, & Keller, 1979; Linsky, 1975; Lundberg, & Larsen, 1949; Nichols, Meyer, 1966; Paxson, 1992; Parasuraman, 1982; Schleifer, 1986; Sosdian, & Sharp, 1980; Steeh, 1981; Tedin, & Hofstetter, 1982; Zusman & Duby 1984). These changes affect response rate. To help ensure efficacy, a high response is sought in survey response. Yet, any of a number of factors can retard response rates. Complicating matters more, these factors can and do change over time. Some research is already starting to track internet participation in survey research. An entire industry is developing on the internet to assist researchers in maximizing response rates which is ultimately the goal for enhanced efficacy. Other factors that at one time would retard response rates include education level, gender, and opinions towards surveys as a viable research tool. Research indicates these factors change over time (Babbie, 1989; James & Bolstein, 1990; Paxson, 1992; Schleifer, 1986) and that additional research into these factors would greatly aid the research community. Other methodological changes include altering items that might confuse participants through the use of double negatives, changing the length of the instrument, addressing only one model, and changing the sample size.

While survey methodologies are important for future research, respondents made recommendations themselves for the survey which are worthy of comment. This is the third category of future research recommendations. Perhaps the most striking recommendation came from a late respondent to the instrument. The recommendation was to conduct face-to-face interviews in preference to self-administered surveys. It was most striking because the response came late in the research and from a proximate respondent. Comparing face-to-face interviews with self-administered (survey) interviews would indeed add to the research. Also, a project that addresses respondents in all fifty states is large enough for interesting data to emerge even though the sample size is small. It would be cumbersome for a single researcher to execute such a split methodology because the various participants are so spread out. Information from such a project would not only be helpful though, it would be very interesting as we engage as a society in face-to-face, telephone, electronic and video teleconferencing meetings. With such a variety of ways in which we contact each other, and the sociological tenant already present in survey response research, this could provide interesting insight into how best to conduct interview/survey research for more than just the field of higher education public policy research. Additionally, other respondents to this dissertation recommended using a shorter survey while others commented the survey adequately addressed the issues. Conducting follow-up research into respondents' opinions on the length of the survey could provide some very worthwhile information for corroborative research into survey research.

Respondents also expressed an opinion that continued research into model testing is needed. This is the fourth category of future research recommendations. It was apparent respondents felt the research project was valuable and they encouraged continued research into model testing. This dissertation laid the groundwork for model testing, however, it was designed in a comparative manner. Taking any of the three models selected in this dissertation and comparing them with other models ought to enhance the robustness of this study and further research into model testing in general. Additionally, a combined effort with the researchers whose primary focus is model testing and those whose primary focus is higher education should produce some very rewarding research for both areas of concentration. Specifically, the use of content analysis in constructing an instrument, the comparison of models versus examination of a single model, or repetition of this research project during different economic conditions could provide outstanding support for the need to conduct quantitative, empirical testing of models used in higher education public policy research.

The hybrid model in this study requires testing. Using items from this survey would be an economical and efficient method. Since no statistically significant difference was discovered along lines of major issue of policy, the number of questions could be reduced. Additionally, using internet survey methods might be useful. Testing the model for perceived accuracy would not only support research in the hybrid model, it could also act as a follow-up test of this study.

Additional follow-up to this study could include assessing the apparent fundamental shift in perceived accuracy of Incrementalism. While Lindblom (2002) did bemoan the lack of model testing on the Incremental model, and Hartmark & Hines (1980) echoed the early call of policy science pioneers, the incremental model is part of the ethos of higher education policy science. The results from this study directly contradict the ethos therefore testing is required. A single model test using interview/survey techniques or a comparative method, like this study, with models other than those used in this study would provide interesting information to answer the question on whether or not policymaking is incremental.

This dissertation sought to provide evidence that quantitative, empirical testing of models used in higher education public policy research was needed. While the dissertation results clearly support this contention, limitations existed, and further research is still needed. Research into survey methodologies for legislators will help because legislators are the primary policymakers in higher education public policy. Additional survey research will help reduce non-response rates, costs, and save researcher time. Comparing face-to-face with self-administered interviews/surveys and conducting follow-up interviews into the opinions of respondents will help focus information gathering on the most effective, but perhaps not the most efficient, methodologies. Finally, continuing to apply quantitative, empirical testing methodologies to models as a prerequisite before publication will add robustness to the field of higher education public policy research. Testing for a fundamental shift in ethos with regards to the

perceived accuracy of the Incremental model is needed. Finally, examining the hybrid model will help finish the work started here. This dissertation is just the start in this research endeavor. While this project is a beginning for the field of higher education public policy research, it is also a start for future studies by this researcher.

Significance of the Study: Reflections and Observations

A dissertation is more than a research project for advancing knowledge in a field of study; it is also a personal journey. This journey was most enlightening, not only because of the results of the study but because of the personal growth. Also, the dissertation presented a unique opportunity to go beyond a comfort level and experience previously unimaginable frustrations. It changed my lenses forever on higher education public policy, modeling, model testing, and on human behavior. These changes and frustrations were a result of response rate worries, dissertation analysis and structure, and a desire to understand and model higher education public policy well. This section describes the frustrations and the learning that transpired in dealing with them.

Perhaps the most frustrating aspect to this dissertation was dealing with response rates and methods to enhance them. The original plan was to contact respondents when they would most likely be available, but this did not come to fruition. However, through repeated attempts at contact, a solid number of responses resulted—sufficient to make general observations about policymaker behavior. Granted this dissertation initially sought to examine other factors

considered important in enhancing response rates. These factors included the use of such techniques as pre-contact, electronic mail in conjunction with and compared to postal mail, splitting respondents into unique groups (SHEEOs and LECCs), and providing an instrument that was as reliable as possible in bringing out earnest responses from participants. Unfortunately, other factors inhibited or retarded attempts to mitigate non-responses. These factors, such as responding to military obligations in preparation for conflicts, lessened the influence of mitigations. Not having the surveys mailed in the fall to the LECCs was a constant worry, and demanded excessive contact attempts. Ultimately, the response rates were good and the conducting of analysis with useful and meaningful data was possible. This leads to the second frustration, dissertation analysis and structure.

Frustrations occurred while trying to analyze the data and answer the research questions and the analysis posed. Also, other questions arose based on the result of this dissertation. For example, while a model might score high in a specific analysis, what does the score really mean? The journey to respond to these questions was more difficult than responding to the four primary research questions. The journey was more difficult because initially it was not as well structured. The answers to the research questions came directly from the tables while the answers to the perplexing questions were not so neatly organized. It was frustrating to this researcher, but in the end it was very enlightening to see this dissertation did have new findings for the field in theory and practice and suggest a new model. Granted the findings were limited by certain factors, they

were nonetheless excellent contributions in that they responded to decades of unanswered questions and pointed the way towards future research. While at its core this dissertation sought to advocate, conduct, and advance quantitative, empirical testing of models used in higher education public policy research, it was also the expression of a passion to bring order to a fluid if not chaotic endeavor, that of higher education public policymaking.

Policymaking is dynamic and at times it can appear chaotic. However, the potential to describe the dynamic as a harmonic symphony through modeling was irresistible. The literature describes policymaking with many paradigms. How researchers attempt to view a problem, what tools they use for their lenses, and how they inform the respondents of their results ought to lead to good public policy. However, all too often the best intentions are overcome by events. Issues change, legislators move on, systems evolve, and regional influences ebb and flow. While Kingdon's streams would seem to resonate most with this description of policymaking events, opportunity windows were not perceived as accurate. Lovell's model was perceived as accurately and completely describing how legislators behave. It is this researcher's impression that Kingdon's and Lovell's models along with Lindblom's elements of value discussion early in policymaking start with the assumption that good public policy can be modeled. A definition of the idea of good requires a value system, whether from an individual stand point or from a group standpoint. Recognizing that these two value systems exist and placing them together to work with each other does result in good models of higher education public policy and good policy. The fact that

Kingdon's and Lovell's models had the highest means ultimately pointed out the most important lesson for me; public policy and the models of policymaking are much more than process, they are as much about individual and group values as well.

While producing good public policy should be the goal for policymakers, the discovery of good policy is arduous at best and modeling the true motivation of policymakers is elusive. This is not meant to cast dispersions on policymakers. Their candid responses illuminated a group characteristic; policymakers do care deeply about solving problems and they want to produce good public policy. Policymakers, whether intentionally or not, do express their value system through the public policy they produce (Crosson, 1984; Greenberg, Miller, Mohr, & Vladeck, 1977; Hartmark & Hines, 1986; Heller, 2001; McGuiness, 1994; McLendon, 2001; Richardson, Bracco, Callan, & Finney, 1999; Sabloff, 1995, 1997; Zumeta, 1992, 1998). While this researcher might have argued in the past that no amount of modeling or inquiries can force the motivation to the fore, it seems apparent that motivation is not as masked as it might have occurred—in other words, this researcher was certain the treatment each of the model authors gave to values would not sway the researcher from a scientific, detached approach. This researcher was wrong.

As stated in the opening of this dissertation that while it is generally agreed that an inability to accurately portray the higher education public policymaking process can result in dire consequences for society (Easton, 1965b; Lasswell, 1951), quantitative, empirical model testing is just one part of the

solution and strictly examining process neglects to examine the human side to public policymaking. Neglecting the human side to policymaking is as dire a consequence to public policy as it is to modeling higher education public policymaking. This dissertation initially sought to examine three primary elements (major issues, compacts, and systems of governance) considered important in the quantitative, empirical testing of public policy models. Without a lens through which to view the results and without due consideration to the myriad values policymakers carry with them to the process of public policymaking, the end result of good public policy is elusive. Yet, with these values clearly understood or at the very least accounted for accurate modeling of policymaking is possible.

Summary

This study examined the perceived accuracy of three models, and their elements, as reflecting the higher education public policymaking process of state legislators as reported by State Higher Education Executive Officers and the state Legislative Education Committee Chairpersons and it proposed a hybrid model from the results of the data analysis. This researcher developed an assessment of the models with a carefully constructed survey instrument. Once constructed, a panel of experts gave the survey a thorough review and made seven significant contributions to the format of the survey as well as recommendations on wording for four items on the survey. A pilot group then participated and established a baseline for the remaining research work. Participants, the SHEEOs and LECCs,

were most gracious in allotting time to respond to the surveys. While it was an arduous task to gather responses, the results were extremely helpful in assessing the models and answering the research questions. The dissertation discovered that Kingdon's and Lovell's models were perceived as accurate and Lindblom's model was perceived as inaccurate. Aside from determining the perceived accuracy of the three models, a systems hybrid model resulted with seven elements across five stages.

The hybrid model is a normative and descriptive model. It models the systems and stages involved in higher education public policymaking. Likewise, it represents both frameworks examined in this study, the comprehensive, rational framework and the incremental framework. The hybrid model will be useful to higher education and public policy science research in that it provides academicians and analysts with a tool to study public policymaking. What remains is to test the hybrid model using the methods from this study. Aside from answering the research questions and presenting a new model, this dissertation advanced knowledge in the field of higher education public policy research.

This dissertation advanced knowledge and starts to correct the profound absence of inquiry into the basic theoretical assumptions regarding public policy and higher education. Knowledge was advanced through a rigorously and scientifically developed survey, thereby modeling a process for future model testing. Information from this dissertation provides an objective baseline for future model testing, an important final step before a researcher publishes their model. Also, the analysis of the three models in this study provides a hybrid

model. While the dissertation does accomplish much, it still has limitations each of which were addressed along with the mitigating factors associated with them. Mitigating these limitations required exhaustive measures at times. These limitations did not impede successful research. Future research is still needed to further reduce the limitations. Additionally, four categories of future research recommendations were presented (survey methodologies for legislators, survey research in general, recommendations from survey respondents, and model testing especially in higher education public policy) along with a hybrid model that will require testing. These research projects should provide the higher education community with outstanding knowledge into public policy and research of the same. This will be invaluable! Of equal value to the researcher was the discovery that individual and group values are a key factor in policymaking and models that incorporate the subjective aspects are more accurate. Defining the subjective, however, is the difficult part of model development and understanding the definition is the difficult part of model testing.

This dissertation is just the beginning. It is the beginning for the field of higher education public policy research, for model testing, for tests of perceived accuracy, and for this researcher. Without a doubt, repeating this onerous task of model testing is necessary for subsequent research into the reliability, validity, and viability of models used in the study of higher education public policy; research that is on the horizon for this researcher.

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APPENDIX A
CONTENT ANALYSIS-KINGDON'S MODEL

APPENDIX A
CONTENT ANALYSIS-KINGDON'S MODEL¹

<u>Ele. Code</u>	<u>No.</u>	<u>Element Statement</u>
KI1	1	Policymakers responded to systematic indicators that showed a problem existed (90)
KI1	2	Policymakers responded to crisis events (96)
KI2	1	Policymakers saw the policy as reasonably feasible (131-2)
KI2	2	Policymakers first evaluated the political support for the proposed solution (139)
KI3	1	Policymakers determined that a degree of consensus for the policy existed (150)
KI3	2	Policymakers responded to a shift in mood towards support for the policy (146)
KI4	1	Policymakers coupled problems with solutions at an advantageous time (166)
KI4	2	Policymakers noted an idea's time had come (169)

¹ Kingdon, J. W. (1995). *Agendas, Alternatives, and Public Policies*. New York, NY: Longman

APPENDIX B
CONTENT ANALYSIS-LINDBLOM'S MODEL

APPENDIX B
CONTENT ANALYSIS-LINDBLOM'S MODEL²

<u>Ele. Code</u>	<u>No.</u>	<u>Element Statement</u>
LI1	1	Resulted when the values were clarified early in the decision making process (81)
LI1	2	Policymakers selected policies that were combinations of values (82)
LI2	1	Policymakers decided the proposed policy was the most preferred policy (83)
LI2	2	Policymakers agreed the proposed policy would be a good policy (84)
LI3	1	Policymakers considered a limited number of options (84)
LI3	2	Policymakers enacted policy that differed only slightly from the status quo (85)
LI4	1	Policymakers sought a succession of incremental changes in the policy (86-7)
LI4	2	Policymakers "flew by the seat of their pants" without regard to policy science theories (87)

² Lindblom, C.E. (1959). The Science of "Muddling Through." *Public Administration Review*. 19(2), 79-88

APPENDIX C
CONTENT ANALYSIS-LOVELL'S MODEL

APPENDIX C
CONTENT ANALYSIS-LOVELL'S MODEL³

<u>Ele. Code</u>	<u>No.</u>	<u>Element Statement</u>
LO1	1	Policymakers included stakeholders when identifying the problem
LO1	2	Policymakers included stakeholders when developing solutions
LO2	1	Policymakers considered stakeholder values when identifying alternative solutions
LO2	2	Policymakers considered stakeholder values when developing alternative solutions
LO3	1	Policymakers sought to avoid micromanaging the implementation of policy
LO3	2	Policymakers sought to avoid micromanaging the enforcement of policy

³ Lovell, C.D. (2001). "What Makes Public Policy Good?" Paper presented at the Public Policy Pre-conference, Association for the Study of Higher Education, November, 2001, Sacramento, CA

APPENDIX D
PANEL OF EXPERTS

PANEL OF EXPERTS

Allen, Debbie. Former State Legislator, Colorado

Bell, Julie. Education Program Director, National Conference of State

Legislatures

Callan, Pat. Former SHEEO, California.

Ethington, Corinna. Center for the Study of Higher Education, The University of

Memphis

Fowler, Frances. Professor, Miami University, author of *Policy Studies for*

Educational Leaders (2001)

Larson, Toni. Executive Director of Independent Higher Education of Colorado

Lingenfelter, Paul E. Executive Director, State Higher Education Executive

Officers

Longanecker, David. Executive Director, WICHE, former Secretary of Education

McLendon, Michael. Assistant Professor of Public Policy and Higher Education,

Vanderbilt University

Sabloff, Paula. Professor, Senior Research Scientist, University of Pennsylvania

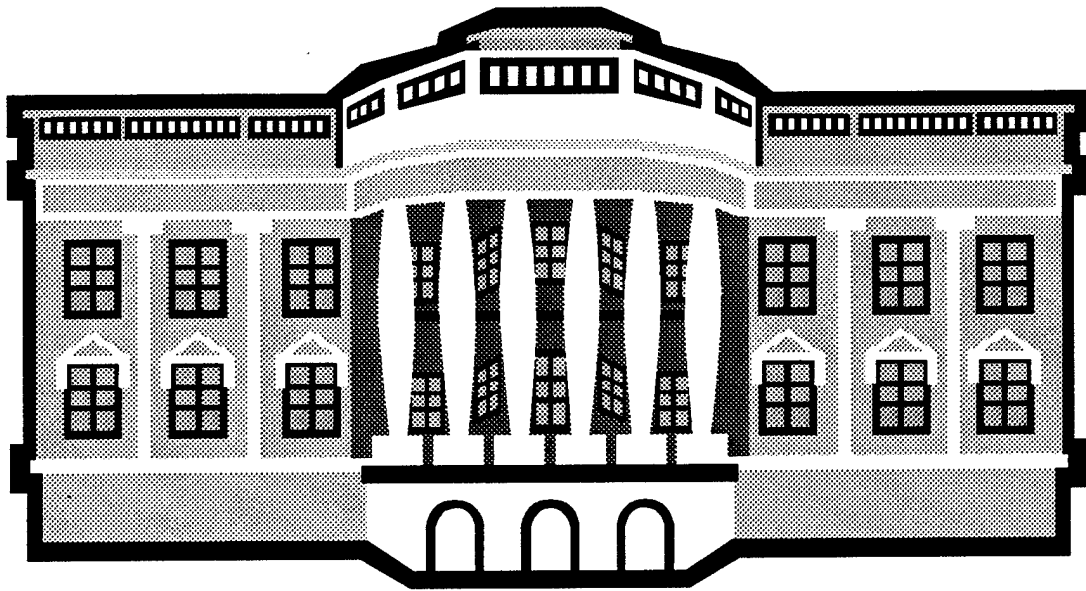
Van de Water, Gordon (Spud). Project Manager, Education Commission of the

States

APPENDIX E
PANEL OF EXPERTS SURVEY

**ASSESSING THREE MODELS OF
THE HIGHER EDUCATION
PUBLIC POLICYMAKING PROCESS**

**A doctoral study
Richard H. Klodnicki
College of Education
University of Denver
(719) 265-5563
richard@klodnicki.net**



**A SURVEY OF THE STATE HIGHER EDUCATION EXECUTIVE OFFICERS AND THE
STATE LEGISLATIVE EDUCATION COMMITTEE CHAIRPERSONS**

Richard H. Klodnicki

[REDACTED]
[REDACTED]
(719) 265-5563

DATE

NAME

ADDRESS

CITY, STATE, ZIP

Dear NAME,

This study seeks your perceptions of the accuracy of three models in describing the complex higher education public policymaking process. Policy analysts, whether in the public, private, or academic sector, rely on models of the public policymaking process to perform accurate analysis of the policy and the policymaking process. Models help analysts by describing a complex process in a more manageable manner. The three models of interest for this study are Kingdon's Multiple Streams model, Lindblom's Bounded Rationality (Incrementalism) model, and Lovell's Three-Tier Taxonomy model. Each of the three models describes the policymaking process. This study seeks to test the accuracy of the models when applied to the study of higher education public policymaking. The survey asks you to give your opinion regarding the models accurate depiction of the process in dealing with the three major issues of higher education public policy namely, access, affordability, and accountability.

Of the three models, none, one, all, or a combination of the models might seem accurate to you. In addition, not an entire model but parts of a model might seem accurate. Whatever your opinion, please let me know. No right or wrong answer exists; this study does not support or oppose any of the models, or parts of the models. This is a study of the perceived accuracy of the models in producing good higher education public policy as reported by you, the State Higher Education Executive Officer and the Legislative Education Commission Chairperson.

This survey consists of 66 questions dealing directly with the models and a demographic information page. You may also use the final page for comments regarding the survey or the study. Feel free to include an additional sheet if you have additional comments. Once you complete the survey, please return this packet in the self-addressed, stamped, return envelope provided. If you want a copy of the results from this study, please indicate that desire on the final page of the packet. The success of this study depends on your participation, thank you.

RICHARD H. KLODNICKI
Ph.D. Candidate
University of Denver

DIRECTIONS

You will find the questions for this study separated by model and then by major issue area. Each question asks for your perception of the accuracy of the model in describing the efforts of policymakers in developing their own higher education public policy agenda (Kingdon) or in developing higher education public policy (Lindblom, Lovell). Keep in mind, these questions seek your opinion and no right or wrong answer exists. Mark your answers on the scale provided to the right of the question. Please mark only one response for each question. Once you complete the survey, please return this packet in the self-addressed, stamped, return envelope provided. If you want a copy of the results from this study, please indicate that desire on the final page of the packet. The success of this study depends on your participation, thank you.

For your convenience, and for consistency across the study, the following definition of terms and models applies. **Affordability** is the desirability of the state to financially support costs for higher education to any qualified person. **Access** is the efforts of a state to ensure equality of attendance opportunities to any qualified person. **Accountability** is the states' efforts to ensure higher education properly stewards its resources and responding to the demands of the legislation. **Kingdon's Multiple Streams** model describes the process of agenda setting. Specifically, Kingdon describes the process as consisting of three independent streams (problems, policies, and politics) coming together at an opportune time, called a Window of Opportunity. **Lindblom's Bounded Rationality** (Incrementalism) presents policymaking as a process of small, incremental changes from the status quo; new policy relies on old policy. His model addresses the complexity of understanding, evaluating, and applying values and objectives in crafting good policy. **Lovell's Three-Tier Taxonomy** model illustrates the policymaking process as a coordinated effort between policymakers and stakeholders. Her model addresses the need for cooperation and

communication of values and objectives in crafting good policy that will not fail due to micromanagement.

Please turn the page and begin. Again, thank you for your participation!

Project Information Sheet and Advice of Consent

This dissertation study is in partial fulfillment of the requirements for the degree Doctor of Philosophy for Richard H. Klodnicki. This project is supervised by the committee chairperson, Dr. Cheryl Lovell, College of Education, University of Denver, Denver, CO 80208, 303.871.2490, cdlovell@du.edu. You can reach Richard H. Klodnicki at 719.265.5563 and at richard@klodnicki.net.

Participation in this study should take about ten minutes of your time. Participation will involve responding to 66 questions about three models of policymaking. Participation in this project is strictly voluntary. The risks associated with this project are minimal. If, however, you experience discomfort you may discontinue your participation at any time. We respect your right to choose not to answer any questions that may make you feel uncomfortable. Refusal to participate or withdraw from participation will involve no penalty or loss of benefits to which you are otherwise entitled.

Your responses will be anonymous. Please do not write your name anywhere on the questionnaire. Your return of the questionnaire will imply your consent to participate in this project.

If you have any concerns or complaints about how you were treated during the process, please contact Dr. Cynthia McRae, 303.871.2475, Chair, Review Panel, or Dawn Nowak, Office of Sponsored Programs, 303.871.4052, dnowak@du.edu or write to either at the University of Denver, Office of Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

You may keep this page for your records.

Kingdon's Multiple Streams model describes the process of agenda setting.

Kingdon describes the agenda as the "the list of subjects to which people in and around government are paying serious attention at any given point in time"

(Kingdon, 1995, p 166). In the following twenty-four questions on Kingdon's Multiple Streams model on agenda setting (divided into the three major issues of affordability, access, and accountability) please mark the answer in the right column that best describes your opinion. Remember, a "6" is ALWAYS, and a "1" is NEVER.

When developing their **own** agenda for higher education public policy issues of **AFFORDABILITY** (the desirability of the state to financially support costs for higher education to any qualified person), policymakers:

	Always				Never	
1. Relied on feedback from advocates that a financial support problem existed.	6	5	4	3	2	1
2. Relied on the perceptions of advocates that a financial support "crisis" existed.	6	5	4	3	2	1
3. Considered whether a proposal was a reasonably feasible solution to the problem.	6	5	4	3	2	1
4. Considered whether a proposal had political support.	6	5	4	3	2	1
5. Judged the degree of consensus among organized political forces.	6	5	4	3	2	1
6. Sensed the mood towards support of a policy.	6	5	4	3	2	1
7. Judged the most advantageous time to present a financial support policy.	6	5	4	3	2	1
8. Waited for the idea of financial support to get really hot.	6	5	4	3	2	1

When developing their **own** agenda for higher education public policy issues of **ACCESS** (the efforts of a state to ensure equality of attendance opportunities to any qualified person), policymakers:

	Always				Never	
9. Responded to signals from advocates that an access problem existed.	6	5	4	3	2	1
10. Responded to perceived or actual access crisis events.	6	5	4	3	2	1
11. Considered whether a proposal would be difficult to implement.	6	5	4	3	2	1
12. Considered whether a proposal conformed to the values of the policymaker.	6	5	4	3	2	1
13. Determined whether the balance of forces favored the action.	6	5	4	3	2	1
14. Determined whether a shift in mood towards support of a policy occurred.	6	5	4	3	2	1
15. Shifted agenda items dealing with access ahead of others because they believe the access proposal stood a chance of enactment.	6	5	4	3	2	1
16. Waited for the idea of access' time to come.	6	5	4	3	2	1

When developing their **own** agenda for higher education public policy issues of **ACCOUNTABILITY** (the states efforts to ensure higher education properly stewards its resources and responding to the demands of the legislation), policymakers:

	Always				Never	
17. Relied on systematic indications from advocates that an accountability problem existed.	6	5	4	3	2	1
18. Relied on feedback from advocates that an accountability problem existed.	6	5	4	3	2	1
19. Considered whether a proposal met a test of public acceptance.	6	5	4	3	2	1
20. Considered whether a proposal had a reasonable chance for receptivity among elected decision makers.	6	5	4	3	2	1
21. Determined whether a degree of consensus for the policy existed.	6	5	4	3	2	1

- | | | | | | | | |
|-----|--|---|---|---|---|---|---|
| 22. | Gauged whether the general public would at least tolerate the direction pursued. | 6 | 5 | 4 | 3 | 2 | 1 |
| 23. | Compromised or bargained only when implementation of accountability measures seemed likely. | 6 | 5 | 4 | 3 | 2 | 1 |
| 24. | Concentrated only on accountability issues that were going to be productive during the current term. | 6 | 5 | 4 | 3 | 2 | 1 |

Lindblom's Bounded Rationality (Incrementalism) presents policymaking as a process of small changes from the status quo; new policy relies on old policy and changes incrementally. In the following twenty-four questions on Lindblom's Increment model, (divided into the three major issues of affordability, access, and accountability) please mark the answer in the right column that best describes your opinion. Remember, a "6" is ALWAYS, and a "1" is NEVER.

When developing public policy for higher education issues of **AFFORDABILITY** (the desirability of the state to financially support costs for higher education to any qualified person), policymakers:

- | | | Always | | | | Never | |
|-----|---|--------|---|---|---|-------|---|
| 25. | Sought clear definitions of the values associated with financial support in the early part of the policy making process | 6 | 5 | 4 | 3 | 2 | 1 |
| 26. | Sought a policy that conflicted with as few of the values associated with the idea of affordability. | 6 | 5 | 4 | 3 | 2 | 1 |
| 27. | Selected a 'most preferred' policy | 6 | 5 | 4 | 3 | 2 | 1 |
| 28. | Selected a policy that compared more favorably with the other policy recommendations | 6 | 5 | 4 | 3 | 2 | 1 |
| 29. | Considered a limited number of financial support options due to the confinements of time and information on the policymaker | 6 | 5 | 4 | 3 | 2 | 1 |
| 30. | Considered policy that differed slightly from the current policy in favor of developing new policy | 6 | 5 | 4 | 3 | 2 | 1 |
| 31. | Enacted policy with the assumption the new policy would only solve an increment of the problem | 6 | 5 | 4 | 3 | 2 | 1 |
| 32. | Enacted policy without regard to policy science theories | 6 | 5 | 4 | 3 | 2 | 1 |

When developing public policy for higher education issues of **ACCESS** (the efforts of a state to ensure equality of attendance opportunities to any qualified person), policymakers:

	Always				Never	
33. Sought early clarification of the values associated with access issues	6	5	4	3	2	1
34. Sought a policy that reduced conflicts over access issues	6	5	4	3	2	1
35. Selected a policy with clearly defined access objectives (e.g. enrollment percentages for minorities or women)	6	5	4	3	2	1
36. Selected a policy that others agreed was 'good' public policy	6	5	4	3	2	1
37. Considered only a partial list of access options due to restrictions on their time and limited available information	6	5	4	3	2	1
38. Considered policy that approximated the current policy	6	5	4	3	2	1
39. Enacted policy with the idea of limiting but not erasing issues of access	6	5	4	3	2	1
40. Enacted policy with the idea that access theory is sometimes of extremely limited helpfulness in policymaking	6	5	4	3	2	1

When developing public policy for higher education issues of **ACCOUNTABILITY** (the states efforts to ensure higher education properly stewards its resources and responding to the demands of the legislation), policymakers:

	Always				Never	
41. Sought policy that supported their values towards accountability	6	5	4	3	2	1
42. Sought policy that presented a shared value towards accountability	6	5	4	3	2	1
43. Selected policy that supported the most preferred objectives of stewardship	6	5	4	3	2	1

When developing public policy for higher education issues of **ACCESS** (the efforts of a state to ensure equality of attendance opportunities to any qualified person), policymakers:

	Always				Never	
33. Sought early clarification of the values associated with access issues	6	5	4	3	2	1
34. Sought a policy that reduced conflicts over access issues	6	5	4	3	2	1
35. Selected a policy with clearly defined access objectives (e.g. enrollment percentages for minorities or women)	6	5	4	3	2	1
36. Selected a policy that others agreed was 'good' public policy	6	5	4	3	2	1
37. Considered only a partial list of access options due to restrictions on their time and limited available information	6	5	4	3	2	1
38. Considered policy that approximated the current policy	6	5	4	3	2	1
39. Enacted policy with the idea of limiting but not erasing issues of access	6	5	4	3	2	1
40. Enacted policy with the idea that access theory is sometimes of extremely limited helpfulness in policymaking	6	5	4	3	2	1

When developing public policy for higher education issues of **ACCOUNTABILITY** (the states efforts to ensure higher education properly stewards its resources and responding to the demands of the legislation), policymakers:

	Always				Never	
41. Sought policy that supported their values towards accountability	6	5	4	3	2	1
42. Sought policy that presented a shared value towards accountability	6	5	4	3	2	1
43. Selected policy that supported the most preferred objectives of stewardship	6	5	4	3	2	1

44. Selected the policy that appeared to be 'the best' public policy	6	5	4	3	2	1
45. Considered only options presented without regard to other possible options existing	6	5	4	3	2	1
46. Considered policy that resembled the status quo	6	5	4	3	2	1
47. Enacted policy with the expectation that only part of their objective would be achieved with the policy	6	5	4	3	2	1
48. Enacted policy by "flying by the seat of their pants" instead of following the advice of theorists or policy science theories	6	5	4	3	2	1

Lovell's Three-Tier Taxonomy model illustrates the policymaking process as a coordinated effort between policymakers and stakeholders. In the following eighteen questions on Lovell's Three-Tier Taxonomy model (divided into the three major issues of affordability, access, and accountability), please mark the answer in the right column that best describes your opinion. Remember, a "6" is ALWAYS, and a "1" is NEVER.

When developing public policy for higher education issues of **AFFORDABILITY** (the desirability of the state to financially support costs for higher education to any qualified person), policymakers:

	Always					Never
49. Included stakeholders to help identify financial support problems	6	5	4	3	2	1
50. Included stakeholders to help develop alternatives for dealing with financial support problems	6	5	4	3	2	1
51. Considered stakeholder values towards financial support when identifying possible problems	6	5	4	3	2	1
52. Considered stakeholder values towards financial support when developing alternatives for policy	6	5	4	3	2	1
53. Sought to avoid micromanaging the implementation of financial support policy	6	5	4	3	2	1
54. Sought the appropriate level of authority for enforcing financial support policy	6	5	4	3	2	1

When developing public policy for higher education issues of **ACCESS** (the efforts of a state to ensure equality of attendance opportunities to any qualified person), policymakers:

	Always				Never	
55. Incorporated stakeholders in the decision making to help discover problems of access	6	5	4	3	2	1
56. Incorporated stakeholders in the decision making to help discover alternatives for problems of access	6	5	4	3	2	1
57. Considered stakeholder values when identifying problems of access	6	5	4	3	2	1
58. Considered stakeholder values when developing alternatives for dealing with issues of access	6	5	4	3	2	1
59. Sought to avoid micromanaging the implementation of access policy	6	5	4	3	2	1
60. Sought the appropriate level of authority for enforcing access policy	6	5	4	3	2	1

When developing public policy for higher education issues of **ACCOUNTABILITY** (the states efforts to ensure higher education properly stewards its resources and responding to the demands of the legislation), policymakers:

	Always				Never	
61. Involved stakeholders in the decision making to help identify accountability problems	6	5	4	3	2	1
62. Involved stakeholders in the decision making to help developing alternatives for dealing with accountability problems	6	5	4	3	2	1
63. Considered stakeholder values towards accountability when identifying problems of stewardship	6	5	4	3	2	1
64. Considered stakeholder values towards accountability when developing alternatives for dealing with problems of stewardship	6	5	4	3	2	1
65. Sought to avoid micromanaging the implementation of accountability policy	6	5	4	3	2	1
66. Sought the appropriate level of authority for enforcing accountability policy	6	5	4	3	2	1

DEMOGRAPHICS

1. I am a (circle one) (SHEEO) or Legislative Education Committee Chairperson

(LECC) for the state of _____ (please fill in the blank).

2. My party affiliation is (circle one):

a. Democrat

b. Republican

c. Independent

d. Other (please specify) _____

3. My gender is:

a. Female

b. Male

4. I have _____ (please fill in the blank) years experience in my current position as

either:

☐ State Higher Education Executive Officer (SHEEO)

☐ Legislative Education Committee Chairperson (LECC)

COMMENTS: Please comment on the survey, as you feel inclined. Once you complete the survey, please return it in the enclosed self-addressed, stamped envelope. Thank you for your valuable participation!

APPENDIX F
PILOT GROUP

PILOT GROUP-LEGISLATORS

<u>Name</u>	<u>Party</u>	<u>Address</u>	<u>City</u>	<u>State</u>	<u>Zip</u>
Daniel, Representative Kelley	D	200 E. Colfax, Room 307	Denver	CO	80203
Darner, Delegate Karen L.	D	969 S. Buchanan St	Arlington	VA	22204
Diegnan, Assemblyman Patrick Jr.	D	908 Oak Tree Avenue, Unit B	South Plainfield	NJ	07080
Edwards, Senator John	D	P. O. Box 1179	Roanoke	VA	24006
Hamilton, Delegate Phillip	R	P.O. Box 1585	Newport News	VA	23601
Harper, Senator Patricia	D	3336 Santa Maria Dr	Waterloo	IA	50702
Keister, Delegate Benny	D	PO Box 1023	Dublin	VA	24084
King, Representative Keith	R	200 E. Colfax, Room 227	Denver	CO	80203
Lehman, Representative John	D	2421 James Boulevard	Racine	WI	53403
Leppik, Representative Peggy	R	7500 Western Ave	Golden Valley	MN	55427
McCormack, Senator Richard J.	D	RR 2 Box 124	Bethel	VT	05032
McKinley, Senator Paul	R	Rt. 5, Box 101 H	Chariton	IA	50049

Miller, Honorable Ronald E.	R	6872 Susquehanna Trail South P.O. Box 277	Jacobus	PA	17407- 0277
Penas, Representative Maxine	R	553 State Office Building	Saint Paul	MN	55155
Steelman, Honorable Sara	D	665 Philadelphia Street	Indiana	PA	15701
Stevens, Representative Greg	D	23438 221st St	Milford	IA	51351
Winter, Representative Steven J.	R	P.O. Box 498	Newbury	NH	03255
Sinclair, Representative Willaim	R	200 E. Colfax, Room 302	Denver	CO	80203
Cloer, Representative Mark	R	200 E. Colfax, Room 301	Denver	CO	80203
Tupa, Senator Ron	D	200 E. Colfax, Room 331	Denver	CO	80203

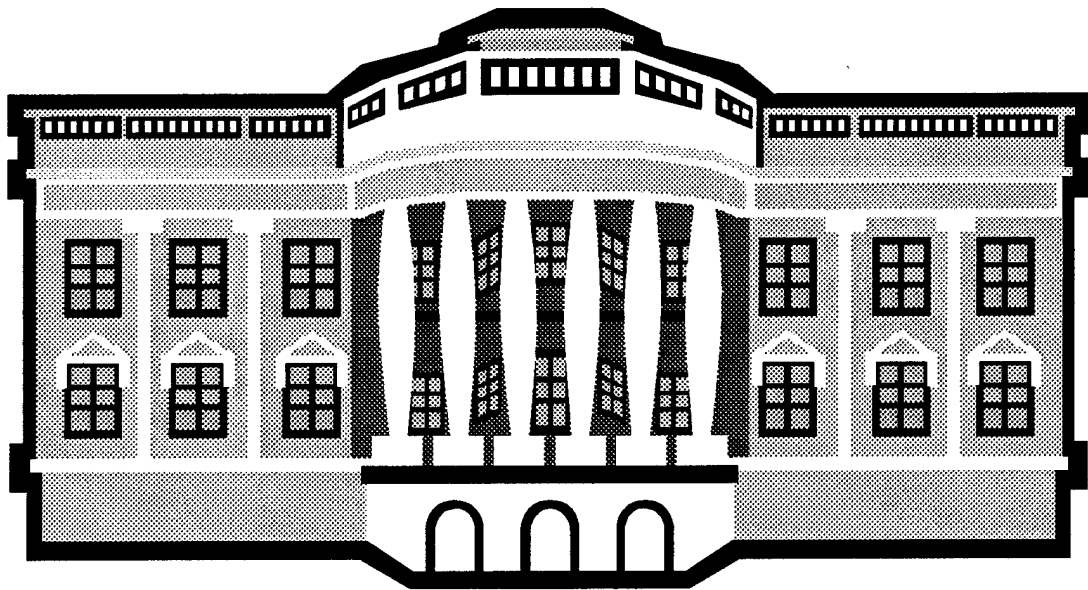
PILOT GROUP-FORMER SHEEOS

<u>Name</u>	<u>Street</u>	<u>City</u>	<u>State</u>	<u>Zip</u>
Farrell, William	P.O. Box 873	Durham	NH	03824-0873
Fitch, Gregory G.	3351 North Highwood Place	Boise	ID	83713
Florestano, Patricia	One-D Compromise Street-Unit D	Annapolis	MD	21401
MacTaggart, Terrence J.	101 Sidney Boulevard	Hampden	ME	04444
Mingle, James R. - Former Executive Director of SHEEO	11296 San Joaquin Ridge	Littleton	CO	80127
Mortimer, Kenneth P.	410 Briar Road	Bellingham	WA	98225
Nolan, Donald	10 Belmont Lane	Clifton Park	NY	12065
Shevlin, George	604 Wilson Street	Carlisle	PA	17013
Snyder, Bruce	1736 Lake Sherwood Drive	Ft. Collins	CO	80525
Stork, Frank	11260 Aurora Avenue	Urbandale	IA	50322-7905
Thoeny, A. Robert	1312 Falkirk Court	Nashville	TN	37221
Todd, Howell	Box 22	Clarksburg	TN	38324
Trendler, Carl	1925 Simmons Road NW	Olympia	WA	98502
Trump, Clifford M.	13 Hamilton Place	Charleston	WV	25314
Wagner, Richard D.	1621 Bates Avenue	Springfield	IL	62704

APPENDIX G
SURVEY

**ASSESSING THREE MODELS OF
THE HIGHER EDUCATION
PUBLIC POLICYMAKING PROCESS**

**Richard H. Klodnicki
College of Education
University of Denver
(719) 265-5563
richard@klodnicki.net**



**A SURVEY OF THE STATE HIGHER EDUCATION EXECUTIVE OFFICERS AND THE
STATE LEGISLATIVE EDUCATION COMMITTEE CHAIRPERSONS**

**PLEASE ENSURE YOU SIGN THE CONSENT FORM ON PAGE 5 OF
THIS SURVEY**

Richard H. Klodnicki
[REDACTED]
[REDACTED]
(719) 265-5563

14 January 2003

Dear Participant,

Since you are an expert on higher education policy, this study seeks your professional opinion on three models used in describing the complex higher education public policymaking process. Your invaluable input helps you by helping policy analysts who use these models understand their accuracy.

At its heart, this is a study of two issues: 1) do the selected models reflect real behavior by legislators and 2) do legislators' behave differently from one issue of higher education public policy to another issue. No right or wrong answer exists; this study does not support or oppose any of the models, or parts of the models. This study helps analysts understand the accuracy of the models they use to provide advice to legislators.

This survey consists of 66 questions and a demographic information page as well as a consent form. Feel free to include an additional sheet if you have additional comments. You may also use the final page for comments regarding the survey or the study.

Once you complete the survey, please be sure to sign the consent form, include it with the survey in the packet, and return this packet in the self-addressed, stamped, return envelope provided. If you want a copy of the results from this study, please indicate this on the final page of the packet.

Again, this study helps analysts understand the accuracy of the models they use to provide advice to legislators. The success of this study depends heavily on your participation, thank you.

RICHARD H. KLODNICKI
Ph.D. Candidate
University of Denver

DIRECTIONS

The questions for this study ask for your perception of 66 statements in describing the efforts of legislators in developing a higher education public policy. **Keep in mind, these questions seek your opinion and no right or wrong answer exists.**

When considering your answer to the question, think of a major policy initiative from **within the past six years**. Mark your answers on the scale provided to the right of the question. The six-point scale uses: Always (6), Almost Always (5), Frequently (4), Sometimes (3), Seldom (2), and Never (1). Please mark only one response for each question. Once you complete the survey, please return this packet in the self-addressed, stamped, return envelope provided. **Please be sure to sign the consent form on page 5 and send it back with the survey.**

For consistency across study participants, the following definitions apply:

- **Affordability** is the state's goal to support financial costs of higher education for any qualified person.
- **Access** is the states' effort to ensure equality of attendance opportunities to any qualified person.
- **Accountability** is the states' effort to ensure higher education properly oversees its resources and responds to the demands of the legislation.

Informed Consent - Survey

You are invited to participate in a study that assesses three models of the higher education public policymaking process. This dissertation study is in partial fulfillment of the requirements for the degree Doctor of Philosophy for Richard H. Klodnicki. This project is supervised by the committee chairperson, Dr. Cheryl Lovell, College of Education, University of Denver, Denver, CO 80208, 303.871.2490, cdlovell@du.edu. You can reach Richard H. Klodnicki at 719.265.5563 and at richard@klodnicki.net.

Participation in this study should take about ten minutes of your time. Participation will involve responding to 66 questions about three models of policymaking. Participation in this project is strictly voluntary. The risks associated with this project are minimal. If, however, you experience discomfort you may discontinue your participation at any time. We respect your right to choose not to answer any questions that may make you feel uncomfortable. Refusal to participate or withdraw from participation will involve no penalty or loss of benefits to which you are otherwise entitled.

All information gathered for this study will be confidential. This means that only the researcher will have access to the information you provide. An identification number will be used on all paperwork. Only the researcher will have the list that matches this number with your name, and this list will be kept in a secure setting. In addition, when the researcher reports information, it will be reported by group and never for any one individual.

Because this study offers confidentiality, the University of Denver requests that you receive the following guidelines on two exceptions to the promise of confidentiality. If information is revealed concerning suicide, homicide, or child abuse and neglect, it is required by law that this be reported to the proper authorities. In addition, should any information contained in this study be the subject of a court order or lawful subpoena, the University of Denver might not be able to avoid compliance with the order or subpoena.

The benefits of being involved in this study include the ability to contribute to improved models of the policymaking process. You may also enjoy the ability to provide information about your own experiences. If you would like a copy of the results of this study, the researcher will make them available for you. You will, however, receive no compensation for your participation in the project. Potential risks of being involved in this study are negligible to none.

If you have any concerns or complaints about how you were treated during the process, please contact Dr. Jeff Jenson, Chair, Institutional Review Board for

the Protection of Human Subjects at 303.871.2526, or Dawn Nowak, Office of Sponsored Programs, 303.871.4052, dnowak@du.edu or write to either at the University of Denver, Office of Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121.

You may keep these pages for your records. Please sign the next page if you understand and agree to participate. Please leave the consent form in the package.

CONSENT FORM

I agree to participate in this study, and I understand that I may withdraw my consent at any time without penalty. I have received a copy of the consent form (pages 3 to 4 of this package) which I may keep for my records.

Signature

Date

AFFORDABILITY Remember, consider a policy initiative since 1996

**When developing public policy for higher education issues of
AFFORDABILITY (the state's goal to support financial costs of higher
education for any qualified person):**

	Always				Never	
1. Legislators relied on feedback from advocates that a financial support problem existed.	6	5	4	3	2	1
2. Legislators relied on perceptions of advocates that a financial support "crisis" existed.	6	5	4	3	2	1
3. Legislators considered whether a specific proposal was a feasible solution to the problem.	6	5	4	3	2	1
4. Legislators considered whether a specific proposal had political support.	6	5	4	3	2	1
5. Legislators judged the degree of consensus among interested organized political forces.	6	5	4	3	2	1
6. Legislators sensed the public mood towards support of a policy.	6	5	4	3	2	1
7. Legislators judged the most advantageous time to present a financial support policy.	6	5	4	3	2	1
8. Legislators waited for the idea of financial support to get really hot.	6	5	4	3	2	1
9. In the early part of the policy making process, Legislators sought clear definitions of the values	6	5	4	3	2	1
10. Legislators sought a policy that conflicted with as few of the values associated with the idea of affordability as possible.	6	5	4	3	2	1
11. Legislators selected a 'most preferred' policy	6	5	4	3	2	1

		Always			Never		
12.	Legislators selected a policy that seemed more favorable than other policy recommendations made at the same time.	6	5	4	3	2	1
13.	Legislators considered a limited number of financial support options due to time and information confinements on the policymaker	6	5	4	3	2	1
14.	Legislators rejected policy that differed slightly from the current policy in favor of developing a new policy	6	5	4	3	2	1
15.	Legislators enacted policy with the assumption the new policy was an incremental or partial solution of the problem	6	5	4	3	2	1
16.	Legislators enacted policy without regard to policy science theories	6	5	4	3	2	1
17.	Legislators included stakeholders to help identify financial support problems	6	5	4	3	2	1
18.	Legislators included stakeholders to help develop alternatives for dealing with financial support problems	6	5	4	3	2	1
19.	Legislators considered stakeholder values towards financial support when identifying possible problems	6	5	4	3	2	1
20.	Legislators considered stakeholder values towards financial support when developing alternatives for policy	6	5	4	3	2	1
21.	Legislators sought to avoid micromanaging the implementation of financial support policy	6	5	4	3	2	1
22.	Legislators sought the appropriate level of authority for enforcing financial support policy	6	5	4	3	2	1

ACCESS Remember, consider a policy initiative since 1996

**When developing an agenda for higher education public policy issues of
ACCESS (the state's effort to ensure equality of attendance opportunities to
any qualified person):**

	Always				Never	
23. Legislators responded to signals from advocates that an access problem existed.	6	5	4	3	2	1
24. Legislators responded to perceived or actual access crisis events.	6	5	4	3	2	1
25. Legislators considered whether a proposal would be difficult to implement.	6	5	4	3	2	1
26. Legislators considered whether a proposal conformed to the values of the legislator.	6	5	4	3	2	1
27. Legislators determined whether the balance of power favored the action.	6	5	4	3	2	1
28. Legislators determined whether a shift in public mood towards support of a policy occurred.	6	5	4	3	2	1
29. Legislators shifted agenda items dealing with access ahead of others because they believed the access proposal stood a chance of enactment.	6	5	4	3	2	1
30. Legislators waited for the idea of access' time to come.	6	5	4	3	2	1
31. Legislators sought early clarification of the values associated with access issues	6	5	4	3	2	1
32. Legislators sought a policy that reduced conflicts over access issues	6	5	4	3	2	1
33. Legislators selected a policy with clearly defined access objectives (e.g., enrollment percentages for minorities or women)	6	5	4	3	2	1
34. Legislators selected a policy that others agreed was 'good' public policy	6	5	4	3	2	1

	Always				Never	
35. Legislators considered only a partial list of access options due to restrictions on their time or limited available information	6	5	4	3	2	1
36. Legislators considered policy that approximated the current policy	6	5	4	3	2	1
37. Legislators enacted policy with the idea of limiting but not erasing issues of access	6	5	4	3	2	1
38. Legislators enacted policy with the idea that access theory is sometimes of extremely limited helpfulness in policymaking	6	5	4	3	2	1
39. Legislators incorporated stakeholders in the decision making to help discover problems of access	6	5	4	3	2	1
40. Legislators incorporated stakeholders in the decision making to help discover alternatives for problems of access	6	5	4	3	2	1
41. Legislators considered stakeholder values when identifying problems of access	6	5	4	3	2	1
42. Legislators considered stakeholder values when developing alternatives for dealing with issues of access	6	5	4	3	2	1
43. Legislators sought to avoid micromanaging the implementation of access policy	6	5	4	3	2	1
44. Legislators sought the appropriate level of authority for enforcing access policy	6	5	4	3	2	1

ACCOUNTABILITY Remember, consider a policy initiative since 1996

**When developing an agenda for higher education public policy
ACCOUNTABILITY issues (the states' effort to ensure higher education
properly oversees its resources and responds to the demands of the
legislation):**

	Always					Never	
45. Legislators relied on perceptions from advocates that an accountability problem existed.	6	5	4	3	2	1	
46. Legislators relied on feedback from advocates that an accountability problem existed.	6	5	4	3	2	1	
47. Legislators considered whether a proposal met a test of public acceptance.	6	5	4	3	2	1	
48. Legislators considered whether a proposal had a reasonable chance of being accepted by elected decision makers.	6	5	4	3	2	1	
49. Legislators determined whether a degree of consensus among legislators for the policy existed.	6	5	4	3	2	1	
50. Legislators gauged whether the general public would at least tolerate the direction pursued.	6	5	4	3	2	1	
51. Legislators compromised or bargained only when implementation of policy proposals seemed likely.	6	5	4	3	2	1	
52. Legislators concentrated only on policies that stood a good chance of passing during the current term.	6	5	4	3	2	1	
53. Legislators sought policy that supported their values towards accountability	6	5	4	3	2	1	
54. Legislators sought policy that presented a shared value towards accountability	6	5	4	3	2	1	
55. Legislators selected policy that supported the most preferred objectives of stewardship	6	5	4	3	2	1	
56. Legislators selected the policy that appeared to be 'the best' public policy	6	5	4	3	2	1	

		Always				Never	
57.	Legislators considered only options presented without regard to other possible options existing	6	5	4	3	2	1
58.	Legislators considered policy that resembled the status quo	6	5	4	3	2	1
59.	Legislators enacted policy with the expectation that only part of their objective would be achieved with the policy	6	5	4	3	2	1
60.	Legislators enacted policy by "flying by the seat of their pants" instead of following the advice of theorists or policy science theories	6	5	4	3	2	1
61.	Legislators involved stakeholders in the decision making to help identify accountability problems	6	5	4	3	2	1
62.	Legislators involved stakeholders in the decision making to help developing alternatives for dealing with accountability problems	6	5	4	3	2	1
63.	Legislators considered stakeholder values towards accountability when identifying problems of stewardship	6	5	4	3	2	1
64.	Legislators considered stakeholder values towards accountability when developing alternatives for dealing with problems of stewardship	6	5	4	3	2	1
65.	Legislators sought to avoid micromanaging the implementation of accountability policy	6	5	4	3	2	1
66.	Legislators sought the appropriate level of authority for enforcing accountability policy	6	5	4	3	2	1

DEMOGRAPHICS

1. I am a (circle one) (SHEEO) or Legislative Education Committee Chairperson (LECC) for the state of _____ (please fill in the blank).

2. My party affiliation is (circle one):

- a. Democrat b. Republican
c. Independent d. Other (please specify) _____

3. My gender is:

- a. Female b. Male

4. I have _____ (please fill in the blank) years experience in my current position as either:

- ☐ State Higher Education Executive Officer (SHEEO)
☐ Legislative Education Committee Chairperson (LECC)

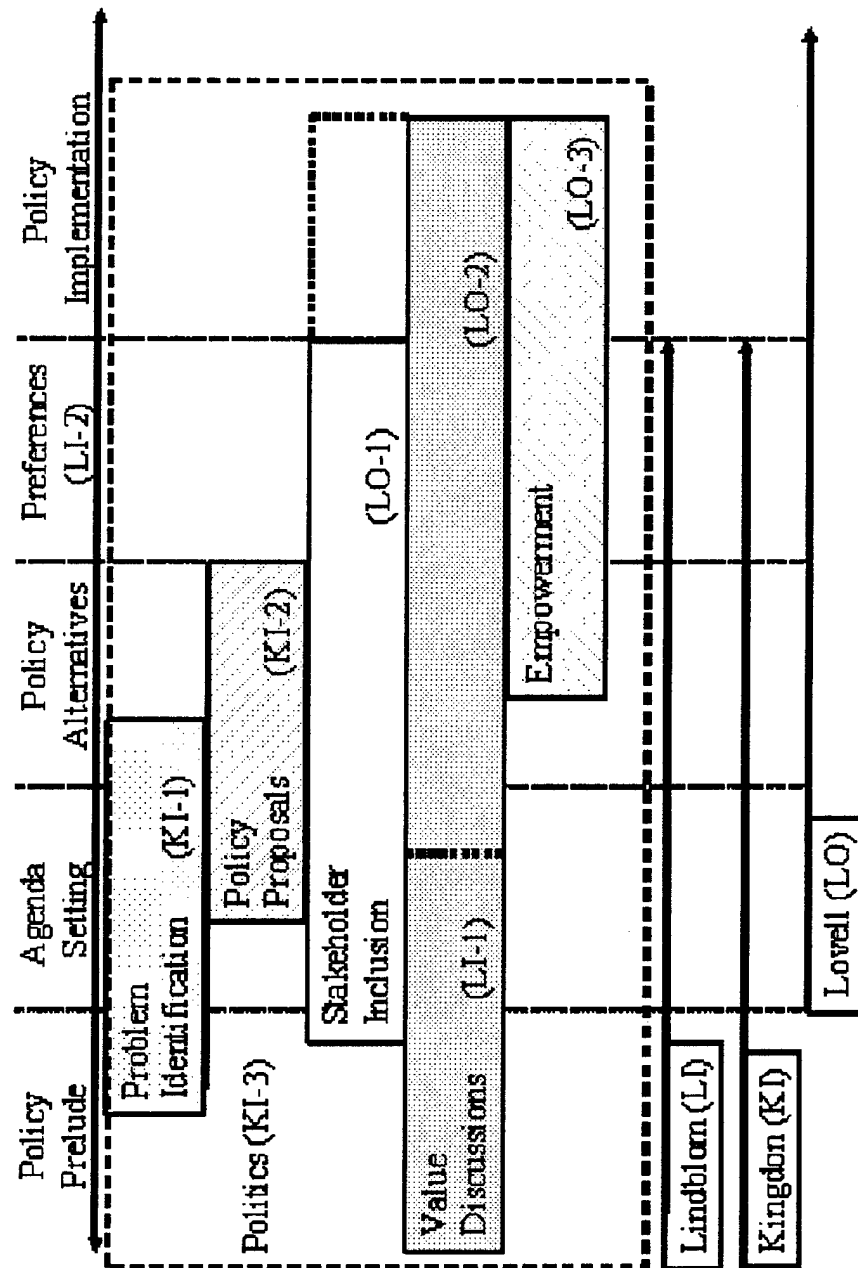
5. Please tell me what policy (or policies) you considered as you answered the questions.

COMMENTS: Once you complete the survey, please return it in the enclosed self-addressed, stamped envelope. Please comment on the survey. Thank you for your valuable participation!

RESULTS: Please let me know if you would like to see the results of this study.

APPENDIX H
HYBRID MODEL

Higher Education Public Policymaking Process – Hybrid Model



Attachment H – Higher Education Public Policymaking Process – Hybrid Model